DOCUMENT RESUME

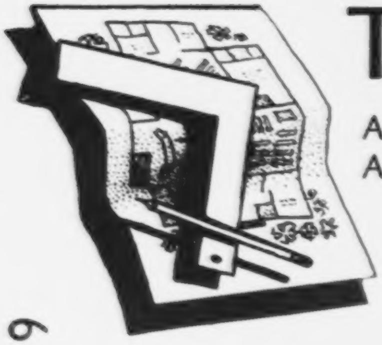
ED 271 109 IR 051 545

AUTHOR	Holt, Raymond M., Ed.
TITLE	Talking Buildings. A Practical Dialogue on Programming and Planning Library Buildings. Proceedings of a Building Workshop (Pasadena, CA, October 3-4, 1986).
INSTITUTION	California State Library, Sacramento.
PUB DATE	86
NOTE	282p.
AVAILABLE FROM	Library Services Development Bureau, California State Library, 1001 Sixth Street, Suite 300, Sacramento, CA 95814 (free while supply lasts).
PUB TYPE	Collected Works - Conference Proceedings (021) -- Guides - General (050) -- Viewpoints (120)
EDRS PRICE	MF01/PC12 Plus Postage.
DESCRIPTORS	*Academic Libraries; *Facility Planning; *Library Expenditures; *Library Facilities; *Library Planning; Position Papers; Public Libraries; Space Utilization
IDENTIFIERS	*California; Library Services and Construction Act

ABSTRACT

These proceedings of a 2-day workshop held to discuss the planning and programming of library facilities construction include a number of papers and appendices that provide information on subjects not often covered in other library literature sources. Papers included in this document are: (1) "Let's Get Acquainted" (Raymond M. Holt); (2) "Putting the Planning Team Together" (Nancy R. McAdams); (3) "Putting Together the Planning Team--Case Study of Architect Selection Process" (Jane E. Light); (4) "The Architect" (Bud Oringdulph); (5) "The Interior Designer" (Marshall Brown); (6) "Turning Needs into Space Requirements" (Nancy R. McAdams); (7) "Turning Needs into Space Requirements: The Public Library" (Raymond M. Holt); (8) "A Menu for Building Programs" (Raymond M. Holt); (9) "Estimating Library Building Project Costs at an Early Stage" (David Sabsay); (10) "Financing California Public Library Buildings, 1985" (Cy Silver); (11) "Questions about LSCA (Library Services and Construction Act) Title II" (Cy Silver); (12) "Converting Program to Costs and Costs to Funding Academic Libraries" (Nancy R. McAdams); (13) "Construction Cost Estimating and Project Cash Flow" (Bud Oringdulph); (14) "Interior Planning for an Integrated Whole" (Marshall Brown); (15) "Hermit Crab Buildings: Living in Someone Else's Shell" (Bud Oringdulph); (16) "Finding Your Way through Drawings and Specifications" (Bud Oringdulph); and (17) "Speaking of Responsibilities" (Raymond M. Holt). Eighteen items that were distributed to workshop attendants are appended. (THC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****



TALKING BUILDINGS

A PRACTICAL DIALOGUE ON PROGRAMMING AND PLANNING LIBRARY BUILDINGS

U.S. DEPARTMENT OF EDUCATION
OERI
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official position or policy.

ED271109

PROCEEDINGS

BUILDING WORKSHOP
OCTOBER 1985

IR051545

Sponsored by: California State Library
Workshop Coordinator: Raymond M. Holt & Associates, Library Consultants Del Mar, California
Fiscal Agent: Metropolitan Cooperative Library System
2235 N. Lake Avenue Altadena, California 91001 (818) 798-1146
Funded by Library Services and Construction Act, Title III

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Collin Clark

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Talking Buildings

A Practical Dialogue on Programming and Planning Library Buildings

Proceedings of a Building Workshop
October 1985
sponsored by
The California State Library

Raymond M. Holt, Editor

Published by Raymond M. Holt & Associates
Del Mar, California

for
California State Library
Sacramento, California
1986

Copies of this publication may be obtained from:

Library Services Development Bureau

California State Library
1001 Sixth Street, Suite 300
Sacramento, CA 95814

This conference and the publications of proceedings were made possible through a grant from Title III funds, Federal Library Services and Construction Act.

TABLE OF CONTENTS

Page

LET'S GET ACQUAINTED Raymond M. Holt 1

PUTTING THE PLANNING TEAM TOGETHER Nancy R. McAdams 7

PUTTING TOGETHER THE PLANNING TEAM--CASE STUDY OF ARCHITECT SELECTION PROCESS Jane E. Light 19

THE ARCHITECT Bud Oringdulph 23

THE INTERIOR DESIGNER Marshall Brown 35

TURNING NEEDS INTO SPACE REQUIREMENTS Nancy R. McAdams 41

TURNING NEEDS INTO SPACE REQUIREMENTS: THE PUBLIC LIBRARY Raymond M. Holt 45

A MENU FOR BUILDING PROGRAMS Raymond M. Holt 65

ESTIMATING LIBRARY BUILDING PROJECT COSTS AT AN EARLY STAGE David Sabsay 93

FINANCING CALIFORNIA PUBLIC LIBRARY BUILDINGS, 1985 Cy Silver 103

QUESTIONS ABOUT LSCA TITLE II Cy Silver 109

CONVERTING PROGRAM TO COSTS AND COSTS TO FUNDING ACADEMIC LIBRARIES Nancy R. McAdams 115

CONSTRUCTION COST ESTIMATING AND PROJECT CASH FLOW Bud Oringdulph 117

INTERIOR PLANNING FOR AN INTEGRATED WHOLE Marshall Brown 129

HERMIT CRAB BUILDINGS: LIVING IN SOMEONE ELSE'S SHELL Bud Oringdulph 143

FINDING YOUR WAY THROUGH DRAWINGS & SPECIFICATIONS Bud Oringdulph 155

SPEAKING OF RESPONSIBILITIES Raymond M. Holt 173

LIST OF FIGURES

		Page
FIGURE 1	Library Planning Team: Responsibility Relationships	8
FIGURE 2	Library Planning Team: Participation by Phases	11
FIGURE 3	Architect Selection Rating Sheet	22
FIGURE 4	Comparison of Building Project Alternatives	61-62
FIGURE 5	Indicating Relationships Through Bubbles	73
FIGURE 6	Another Form of Bubble Diagram	75
FIGURE 7	Basic Functional Relationships of a Hypothetical Airport	76
FIGURE 8	Complex Relationships of a Hypothetical Contemporary Airport	78
FIGURE 9	Relationships of Building Functions to Site	80
FIGURE 10	Overview of Major Library Elements	81
FIGURE 11	Relationship of Entry Lobby to Circulation	82
FIGURE 12	Relationships at the Circulation Desk	84
FIGURE 13	Relationships of the Circulation Desk to Other Areas	85
FIGURE 14	Functional Relationships in the Reference Area	86
FIGURE 15	Sample Library Building Budget	95
FIGURE 16	How Cost Estimates are Organized	120
FIGURE 17	Cost Estimating Components	121
FIGURE 18	Project Cost Summary	122
FIGURE 19	Sample of Component Estimation	123

Page

FIGURE 20 Design Development Estimate 124

FIGURE 21 Quantitative Takeoff Cost Estimate 125

FIGURE 22 Final Cost Estimate (Partial) 126

FIGURE 23 Cash Flow 127

FIGURE 24 Entrance to the Chula Vista Public Library 131

FIGURE 25 Auditorium With Fixed Seats for 150 131

FIGURE 26 Circulation Counter Looking Toward "New Books" and "Reference" Areas 132

FIGURE 27 Childrens' Services Desk 132

FIGURE 28 Childrens' Services Reading Area 134

FIGURE 29 New Books Reading Lounge 134

FIGURE 30 Reference Services Area 135

FIGURE 31 Readers' Advisory Desk and Reader Seating Area 135

FIGURE 32 Adult Reading Area with Paperback Racks Beyond 136

FIGURE 33 Site Plan 138

FIGURE 34 Two Level Entry Lobby 138

FIGURE 35 Lounge Seating Area 139

FIGURE 36 Typical Reading Area 139

FIGURE 37 Staff Reference Desk 141

FIGURE 38 Grid Points 158

FIGURE 39 Key Sign for Elevations 159

FIGURE 40 Interior Elevation Related to the Key in Figure 27 159

FIGURE 41 Section (Building Slice) Key 160

FIGURE 42 Portion of a Building Section 160
FIGURE 43 Room Finish Schedule 161
FIGURE 44 Room Numbers and Finish Keys 161
FIGURE 45 Exterior Elevation Drawing 163
FIGURE 46 Interior Elevation Drawing 163
FIGURE 47 Interior Wall Elevation with Casework 164
FIGURE 48 Reference Desk: Interior and Exterior Elevations 164
FIGURE 49 Reflected Ceiling Plan 165
FIGURE 50 Structural Drawing of Column 167
FIGURE 51 Mechanical Equipment (HVAC) Drawing 168
FIGURE 52 Electrical Drawing: Lighting 169
FIGURE 53 Electrical Drawing: Power 170

Note: The following items were distributed to those attending the TALKING BUILDINGS workshops.

APPENDICES

Appendix No.		Page
1.	Workshop Program	185
2.	Workshop Faculty and Who They Are	191
3.	TALKING BUILDINGS WORKSHOP Registration	197
4.	A Basic Bibliography on Library Buildings, by Raymond M. Holt	203
5.	Bibliography on New Library Buildings, Architectural Adaptations, Remodelings, and Rehabilitation for Libraries, by Bud Oringdulph	211
6.	Bibliography for Library Planners, by Nancy McAdams	219
7.	Selecting Design Professionals: Sample Materials, by Raymond M. Holt	223
8.	Facility Planning, Information and Resources, California State Library	241
9.	Site Selection, by Anders Dahlgren	245
10.	Table of Frequently Used Measurements for Library Space Planning	249
11.	Library Facility Scorecard, by Raymond M. Holt	255
12.	Building Program Outline for Public Libraries, by Raymond M. Holt	261
13.	Parking Guidelines, by Raymond M. Holt	277
14.	Sitting on the Job - A Study in Ergonomics, by Marshall Brown	281

Appendix No.		Page
15.	Flexible Work Spaces (Open vs. Closed), by Marshall Brown	291
16.	Suggested List of Libraries to Visit, by Ann Kirkland	295
17.	Library Floor Plans on Display at Workshops, by Cy Silver	301
18.	Current Academic Library Building Projects	305

FOREWORD

Over 250 Library staff, architects, city and county administrative staff and concerned friends and trustees participated in two sessions of "Talking Buildings" workshops held in California in October 1985. I was particularly pleased to have the California State Library sponsor this workshop supported by Title III, Library Services and Construction Act Funds, at a time of resurgence in academic and public library building construction throughout the state.

I am confident that this event further strengthened California library service. Physical facilities of a public library support the program of service and assessment of community needs for the future as well as the present. Planning physical flexibility of a library to accommodate changing technology of information access and new media, thus avoiding early obsolescence, is also an increasing concern. It is good business to insure our communities have functional and cost effective library facilities.

This planning is part of long range library development programming. In budget years to come, staffing, maintenance and utility cost will be impacted by building design. The calibre and level of library programming and service depend on wise use of public monies. When well planned and built, functional facilities consume only their balanced share of those budget dollars.

Increasing skills and awareness in effective library facility planning is vital in strengthening our library service.

Gary E Strong

GARY E. STRONG
California State Librarian

January 1986

PREFACE

By Raymond M. Holt, Editor

The publication of the TALKING BUILDINGS workshop proceedings coincides with a renaissance in library construction in California. A resurgence of interest in library buildings is being spurred by overcrowded academic and public library facilities. Library space shortages increase inexorably as the promised "paperless" society fails to materialize. Automation and the new media resulting from the evolution in communications technology have created new requirements and space needs that existing library buildings were not planned to meet. Changing patterns of library usage add a further dimension to building stress. Finally, library work routines are undergoing rapid modification as a result of automation and other forces.

The TALKING BUILDINGS workshop was the first event of its kind sponsored by the California State Library since 1970. In the intervening years, library construction declined sharply in California as a result of the long break in Federal LSCA Title II funding and the aftermath of Proposition 13. Judging from the overwhelming response accorded the TALKING BUILDINGS workshop, it would appear that California libraries, both academic and public, are again on the threshold of major construction activity.

These Proceedings of the two-day workshop, presented in Pasadena October 3 and 4, and repeated in Oakland, October 7 and 8 provide a major contribution to the literature on the programming and planning of library buildings. A number of the papers and appendices provide information on subjects seldom covered in other library literature sources. Each paper was presented by an authority in his or her field. The information contained in the Proceedings is timely and up-to-date for those involved in the programming and planning library buildings now. To this end these Proceedings are commended to the reader.

Del Mar, California
February 1986

LET'S GET ACQUAINTED

Raymond M. Holt, Moderator

Good morning wayfarers from airways and freeways! We welcome you to our workshop TALKING BUILDINGS!

I am Ray Holt and have the honor of serving as your workshop coordinator. For the next two days we want you to drop all your other cares and responsibilities and concentrate on TALKING BUILDINGS! Our faculty will do everything possible to make this both an enjoyable and rewarding experience.

As you know, this workshop is funded from LSCA Title III funds under the auspices of the California State Library with the Metropolitan Cooperative Library System acting as the Fiscal Agent. We have had tremendous cooperation from both of these agencies in getting from the concept of the workshop to this opening day. Our thanks to both.

It is our intent to keep this workshop as informal as possible. To that end, I would like to introduce each of our faculty members at this time to avoid unnecessary interruptions later on. More detailed information on each of these individuals is in your packets as Item C for future reading; time does not allow a full recital of qualifications, credentials and pedigrees at this time - just enough information, I hope, to help you identify this motley group. I will introduce them in the order of their appearance on the program.

NANCY MCADAMS

Nancy McAdams is currently making the transition from her former position in facilities management for the University of Texas at Austin to full time private practice as a Planning Consultant. As a licensed architect with a degree in librarianship, Nancy wears two hats. She has participated in numerous academic building projects at the University of Texas and elsewhere, never forgetting the practicalities of library operations. She recently served as President of LAMA of ALA and has chaired several of the Buildings and Equipment Section Committees. I had the privilege of working with Nancy in presenting the 1979 BES PreConference on Buildings in Austin. Thank you, Nancy.

JANE LIGHT

Jane is the Director of the Redwood City Public Library and is presently planning a 45,000 square foot facility to replace the very much overcrowded building familiar to many of us. We are especially grateful to Jane for taking the place of Linda Saferite of Scottsdale who, for reasons of health, could not be here. Jane has had just two weeks or so to prepare for this workshop, a real task considering her other responsibilities. Jane was formerly Director of the Peninsula Library System. She is well qualified to present insights on the library building project process from the vantage point of a library manager. Thank you Jane.

BUD ORINGDULPH

Bud Oringdulph is the President of the Portland architectural firm BOOR/A (Broom, Oringdulph, O'Toole, Rudolf & Associates, if you must know why they use their initials!). Bud is a very articulate and considerate representative of the architectural profession. We have found him to be sincerely concerned with client needs and the ability of good architectural design to respond to those needs. His firm is currently designing a new library building for the University of Alaska at Juneau. Bud does a thorough job of project research. In part this is made possible by the full time librarian BOOR/A has on its staff. Bud is a Fellow of the American Institute of Architects and has served on a number of national committees, most recently as President of the National Council on Architectural Registration. We have found him to be a most helpful and resourceful individual. Thank you, Bud for joining us.

MARSHALL BROWN

Marshall Brown is not a stranger to libraries nor to library workshops having participated in several at the national level. Marshall is president of Marshall Brown Interiors, a San Diego company devoted to interior design for commercial and public buildings. Marshall is concerned about providing the interior environment which make public spaces functional and enjoyable and staff areas pleasant and productive. He was responsible for the interiors for the AIA-ALA award winning Chula Vista Library and the Loma Linda University's Del Webb Memorial Library which has received regional AIA awards. One of Marshall's current interests is the impact of technology on work space, including automation. A brief article on this subject is in your packets. Thank you, Marshall.

Tomorrow you will meet two other members of the Faculty, David Sabsay, Sonoma County Librarian and Cy Silver, California State Library Consultant. I will leave their introductions until then.

Our faculty members hope you will make every effort to become acquainted and to ask whatever pertinent questions may arise.

Well, good friends, we too are embarking on an expedition this morning. We are going to join in a search for better understanding of how library buildings can be programmed for improved results.

For the next 30 hours or so, we will be bonded by a common interest - Talking library buildings. Hopefully we can put other issues and interests aside to concentrate our full attention to this one timely subject. Our faculty members are prepared to share information, inspiration and support. Regardless of how complex your building project may seem, or how desperate your situation seems, you should find help here. The number of libraries represented in this room signifies that you are not alone with your concerns! But be assured, there's an abundance of help available.

Some of you are contemplating your very first opportunity to participate in a building project. For a few of you, the experience is not new. Yet, you have apparently caught the building project fever and are here looking for new concepts and ideas. We don't think you'll be disappointed.

Your project may be small or large. It may be a remodeling or an addition. Perhaps you intend on rehabilitating a building formerly used for another purpose. Or, maybe you are planning an entirely new structure. In any case, it is a challenge that may be unique in your experience requiring knowledge and understanding of processes not previously encountered. Take heart! We are here to help. Ours is the task of supplying information; yours the job of assimilating and adapting what you learn to your particular project situation.

Library building projects, in fact, offer a unique challenge unlike any other we as librarians encounter in our careers. In many cases, with the possible exception of collection development, no other single accomplishment is likely to leave a greater or more lasting legacy of our careers. The decisions we make during a building project will have a profound and lasting effect on collections, services, user response, staff effectiveness and productivity, and long term operational costs. Therefore, building projects rightfully claim a tremendous amount of our time and energy.

We hope you will also recognize your building project as the marvelous learning experience it really is. Through it new vistas will open on library organization and operations as well as on the community the library serves, be it public or academic. Architecture and interior design are certain to take on new meaning. It is a time of ferment with new ideas and concepts to contemplate and test. There is much to be learned and such learning requires time and a conscious effort. The vocabulary must expand and different concepts entertained as to how people relate to their built environment.

If we were to take a poll, we'd probably find that each of you is at a different stage of the process. Often, after spending years convincing others of our desperate space needs, we suddenly find that our project has won approval. It seems that the very next day, as architects begin to call, we discover ourselves dumped unceremoniously into a process of which we have little understanding. We are immediately in need of information on collections, services, staffing, operations and a host of other items.

No one has bothered to tell us about the countless decisions that must be made and the inexorable schedules which have to be met. Why didn't some one warn us that planning library buildings is hard, time consuming work requiring attention to minute detail without loosing sight of program requirements and design goals?

With such pressures added to your day-to-day responsibilites, how can you possibly manage a building project as well? We are a conscientious lot and do not want to be accused of making mistakes that others may have made in their buildings. But in such a situation, how can this be prevented? Little wonder that we have so few library buildings, either public or academic which are worthy of serious study, much less emulation. Of the Taj Mahal's we are often accused of building, we have none!

The inadequacies of our present library buildings, most of which were constructed and/or expanded in the 1950's and 60's is not surprising. Library buildings continue to be faced with the necessity for adapting to new technologies and services undreamed when these buildings were created. Moreover, collection growth must embrace all kinds of new media while responding to the dual forces of the information explosion and the revolution in communications technology. User patterns constantly shift while dollar shortages require greater staff productivity. Meanwhile, with few facility dollars to spend, we librarians have devoted much of the past decade to survival in an adverse economic climate. Such creative energy as we possessed has been channeled largely into acquiring automated systems which are becoming a necessary and integral part of our operations.

While building dollars are still far from adequate - let alone plentiful - there is an urgent need. In California, as in most of the nation, record numbers of projects are being proposed for LSCA Title II funding for public libraries while our college and university systems are receiving numerous library facility requests from various campuses up and down the State. A new wave of library construction appears to be reaching toward the shores of reality. Therefore, we need opportunities such as this Workshop provides to share experience and know-how about library building projects. Now, as a new era of library construction appears on the horizon it is time to again turn our attention to TALKING BUILDINGS.

Surely there is a sense of excitement in all of this, for library building projects ARE exhilerating. Today we promise you that mediocrity need not be yours. Your building can function well and still be handsome. It can be both efficient and beautiful. Planned flexibility can be consistent with excellent architectural design and structural integrity. Your library can embrace the newest technologies and still possess a monumentality that insures its endurance as a worthy accomplishment in the years ahead. However, achieving success requires a strong programming and planning effort which is the focus of this Workshop. And that is exactly what we are going to discuss as we spend these two days TALKING BUILDINGS!

So, with our goal defined as greater knowledge of the library programming and planning process, let us join in this grand expedition.

We turn now to the first part of the program and what may be the initial step of the discovery process for some of you: Putting the Planning Team Together. As the program title indicates, the Why of the Team and its components comes first; the Who, is on second. Nancy and Jane are sharing the responsibility for this presentation which will be followed, as time allows, for the questions you write on the slips in front of you. O.K., Nancy, the platform is yours. Let's TALK BUILDINGS.

PUTTING THE PLANNING TEAM TOGETHER

By Nancy R. McAdams

For this morning's session on "Putting the Planning Team Together", I will lead off by talking about what the various team members do, who's responsible to whom, and how each member of the team is selected, and when they participate. I will describe some typical roles and relationships as well as point through the process that was followed in gathering together a specific planning team -- the one for the new public library at Redwood City, a process which reflects the particular circumstances of that project and that community.

I. MEMBERS OF THE TEAM AND THEIR RELATIONSHIPS

Let's begin by looking at a diagram (Figure 1) -- a theoretical illustration of the members of the planning team and their relationships to each other. The "balloons" on this diagram bear generic labels, starting at the top:

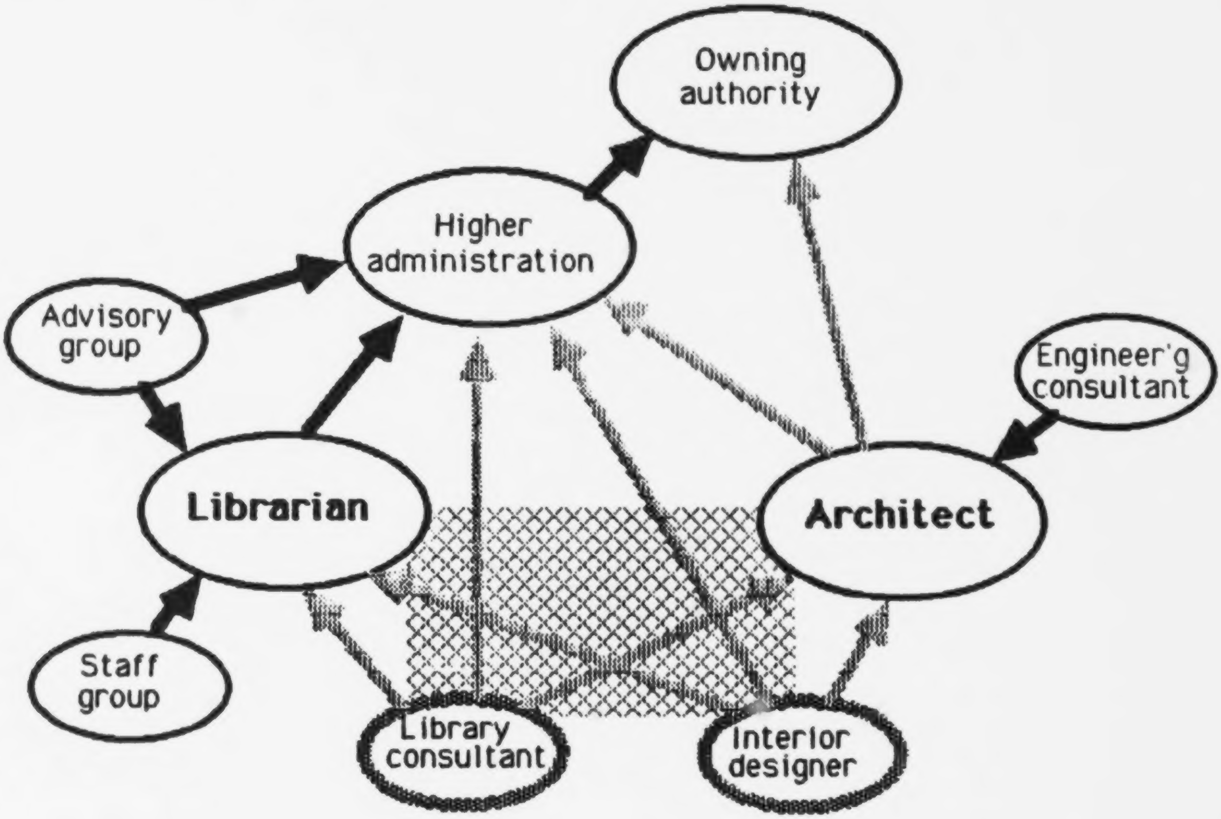
The Owning Authority is the entity which actually is the owner of the library building -- The City, The School District, The University System, The Church Order, The Corporation. Just to the left and appropriately downward is the balloon labeled Higher Administration -- the agency or office to which the Owning Authority delegates management responsibility for its property. This might be the City Manager, the University President, or some other administrative official to whom the library reports. Left and downward from the Higher Administration balloon is Librarian, indicating the library administration. (Note the arrow pointing upward from Higher Administration to Owning Authority, and the arrow pointing upward from Librarian to Higher Administration, denoting upward responsibility). Further off to the left, between the balloons for Higher Administration and Librarian, is the Advisory Group. This represents a committee appointed by the Higher Administration and reporting to it, which acts in an advisory capacity to the Higher Administration and to the Librarian for purposes of this library building project. Typically, the Librarian is a member of that group, but not the head of it. Then at the lower left corner of the diagram is another balloon with an arrow pointing upward to Librarian, labeled Staff Group; this is the in-house planning group appointed by the Librarian to assist with the project.

FIGURE 1

LIBRARY PLANNING TEAM: RESPONSIBILITY RELATIONSHIPS

LIBRARY PLANNING TEAM

Responsibility relationships


Owning authority
Higher administration
Advisory group
Engineer'g consultant
Librarian
Architect
Staff group
Library consultant
Interior designer

Off to the right-hand side is the Architect balloon, with lines pointing upward to Owning Authority and Higher Administration. These lines are greyed to indicate that this responsibility is a variable -- for some projects the architect would be appointed by the top administrative level, for others by the next level down, acting with delegated authority for the project. Next to the Architect balloon is one labeled Engineering Consultants, representing the several technical specialists who comprise part of the architect's own project team.

Now we come to the lower part of the diagram to the two balloons with shaded borders, labeled Library Consultant and Interior Designer. These two players are completely optional, in that many many library buildings are programmed, designed, constructed and furnished without any participation by either a library consultant or an interior designer. If either one is associated with the project, they may be appointed in various ways -- by the library, its higher administration, or by the architect (as indicated by the shaded lines with upward arrows). Some architectural firms have in-house interior design departments, and the interior designer is part of the architect's project team. Occasionally, a library consultant is retained by the architect as part of the in-house team. More commonly, however, both the library consultant and the interior designer are independent professionals engaged by the library administration or its higher administration to provide direct consultation to the library side of the project.

II. WHAT EACH OF THE PLAYERS DOES

Each of these players has a specific responsibility toward the project. Briefly stated, these are as follows:

A. Owning Authority "authorizes" the project -- i.e. gives approval for it to begin, hires the architect (or directs that it be done) and more importantly, provides the money.

B. The Higher Administration initiates the project by requesting funds, establishes the Advisory Group, sets cost limits and scope limits, and makes the go/no go decisions at each stage of the project.

C. The Advisory Group represents the interests of the library's users, counsels the Librarian and the Administration, and serves as advocates for the project.

D. The Librarian is the resident expert on the Library's requirements and the objectives of the project, assisted by the staff planning group who provide the operations point of view.

E. The Architect, aided by engineers and other specialists, translates the requirements and objectives into the design for the building so that it meets its functional needs and makes a positive contribution to its surroundings.

F. The Library Consultant typically assists with the development of the requirements (the building program) and participates through the design stages to see that the architect's design is responsive to the requirements. Some consultants also perform detailed space planning, prepare equipment specifications, or advise the library on move planning or startup operations. Ideally, the library consultant provides supplementary expertise to the librarian, and decision support to the higher administration.

G. The Interior Designer participates in the determination of interior finishes and color, performs space planning, furniture selection and specification, and sometimes furniture procurement and placement.

III. WHEN EACH MEMBER OF THE PLANNING TEAM PARTICIPATES

We can now look at a chart (Figure 2) illustrating the various phases or stages of a library building project to see that even though there are lots of people and firms participating in the project, not all the players are involved all of the time. On this chart, the primary team members are listed as row headings down the left hand side, and the column headings across the top indicate the project phases:

A. Pre-Planning, when the project is initiated and the program prepared;

B. Preliminary Design, Final Design and Working Drawings, when its form and materials are set;

C. Bidding and award, when a contract is let for its construction;

D. The Construction period;

E. The post construction phases of Furnishing the building, Occupying the building and opening it to service, and finally the Dedication.

You can see that Higher Administration, acting for the Owning Authority, is involved in getting the project under way, paying the bills during construction, and taking a bow at the end.

FIGURE 2

LIBRARY PLANNING TEAM: PARTICIPATION BY PHASES

LIBRARY PLANNING TEAM
Participation by phases of project

<table>
<tr><th>Players</th><th colspan="9">Phases</th></tr>
<tr><th></th><th>Pre-planning</th><th>Prelim. design</th><th>Final design</th><th>Working drawings</th><th>Bidding & award</th><th>Constr.</th><th>Furnishing</th><th>Occupancy</th><th>Dedic.</th></tr>
<tr><td>Higher authority</td><td>oooo ▪</td><td>▪</td><td>▪</td><td>▪</td><td>▪</td><td>oooo</td><td></td><td></td><td>XXXX</td></tr>
<tr><td>Librarian</td><td colspan="3">XXXXXXXXXXXXXXXX</td><td>ooooo</td><td>ooooo</td><td>ooooo</td><td colspan="3">XXXXXXXXXXXXXXX</td></tr>
<tr><td>Architect</td><td>ooooo</td><td colspan="4">XXXXXXXXXXXXXXXXXXXXXXX</td><td>XXXXX</td><td>ooooo</td><td></td><td></td></tr>
<tr><td>Library consultant</td><td colspan="3">xxxxxxxxxxxxxxx</td><td>//////</td><td></td><td>//////</td><td colspan="2">//////////////</td><td></td></tr>
<tr><td>Interior designer</td><td></td><td>//////</td><td>xxxxx</td><td>//////</td><td></td><td>//////</td><td>xxxxx</td><td>//////</td><td></td></tr>
</table>

▪ - Decision to proceed
XXXXX - Fully involved
oooooo - Limited involvement
xxxxx - If a consultant or designer is employed, should be fully involved at this stage
////// - If a consultant or designer is employed, would have limited involvement at this stage

At the end of each of the phases through bidding, they must make key decisions -- whether or not to proceed -- indicated by asterisks.

The Librarian, by contrast, is intensely involved almost all the way through the project, first determining the needs, working collaboratively with the architects through the design periods, providing technical information and review through working drawings, consulting as needed on decisions regarding alternates or changes during the bidding and construction, then closely monitoring or directing all the post-construction activities necessary to turn the building into a library.

The Architect has the primary responsibility for everything from Preliminary Design through Construction, may be involved with building programming or site selection before design, and assists after construction to see that the final corrections are made and building systems are fine-tuned.

If there is a Library Planning Consultant on the project, he or she would most typically begin at the beginning, with the determination of needs and the decision to build. Some consulting assignments end there; others go on to advise throughout the design period and review of the working drawings, visits to the building during construction to advise on technical details, and detailed assistance with planning for the move operations.

Similarly, if there is an Interior Designer on the project, he or she might begin during preliminary design but would typically be most heavily involved during the final design, when trial furniture and equipment layouts are made and interior finishes decided, and again during and after construction to specify the furnishings, supervise installations, and finally complete the interior details during move-in.

Keep in mind that there are many variables in the patterns of "who does what and when" in this sequence of events, depending on what gets decided early in the project. If a site must be selected, the architect will be needed sooner than if the site is pre-determined. If the program requirements must be developed in order for the project to be considered by authorizing agencies, and before planning funds are available, the Librarian will have to do the programming alone, and bring in the Library Consultant later. If the building is for a new community or new campus, it may have to be programmed before there is a librarian on board. The need for interior design services may not be realized until construction is under way and it is time to order furniture and bookstacks.

Referring again to the balloon diagram of the members of the planning team, each of these players has responsibility relationships to the others, and certain responsibilities for the project. There are only two absolutes: there must be some agency to "buy" the building -- sign the contracts and pay the bills -- and there must be an architect to create the design and see that it gets constructed. All the players around the left and lower edges of the diagram are collaborators or facilitators of the process. Nevertheless, the real heart of the process is in the lower center, in the working relationships between Librarian, Architect, Library Consultant and Interior Designer. The real key to the success of the project is in the communication which exists between these members of the team, and especially in the quality of the communication between Librarian and Architect.

IV. SELECTING THE ARCHITECTURAL FIRM

Since the rapport between architect and client is so important, it stands to reason that the selection of the architect is a critical factor in the success of the project. The privilege of selecting the architectural firm rests with the one who pays -- i.e. the Owning Authority -- but the responsibility for selection is often delegated to the library's Higher Administration, with varying degrees of participation by the Librarian. Basically there are three methods of making the selection of the firm: direct selection, design competition, or comparative selection.

Direct selection is the method followed when the choice is more or less pre-determined; i.e. only one firm is considered. Perhaps a firm has a standing contract with the library's institution to do all the work on a campus. Perhaps the selection decision has already been made by a major donor, or by following a rotation list of architects approved for city projects. It may even be a political patronage selection. Direct selection is quick and efficient, but it seldom involves the Librarian, and therefore may not result in good working relationships.

The second method, design competition, is complicated, slow, expensive, and sometimes even unproductive. For an open competition, the client must first develop a detailed program for the building, invite design submittals according to rules set down by the American Institute of Architects, evaluate the entries and select the winning design. The firm winning the competition, however, may not be capable of conducting the project. A variant procedure called "invited competition" avoids this problem by pre-qualifying several firms, inviting them to submit entries, and paying each of them a fixed fee for their submissions.

The third method, comparative selection, is used for many private projects and for most projects financed with public monies. It begins by the client's issuance of an announcement called an RFQ, or Request for Qualifications, consisting of a brief description of the proposed project with an invitation to architects to submit statements of qualifications and interest. The client group then reviews the responses, evaluates the firms against whatever criteria have been established, and selects a "short list" for interviewing. In the interviews, both the client group and the architect group have an opportunity to assess their mutual prospects for working well together. The architect learns more about the scope and timing of the project, and the client group learns more about the architect's working style and key personnel.

The client group then ranks the interviewed firms, and negotiates with the top-ranked firm regarding the services to be performed, and the architects compensation. When agreement is reached, they make a contract, generally using the AIA's Owner-Architect agreement forms.

V. FACTORS TO BE CONSIDERED IN SELECTING THE FIRM

A critical step in the selection process, then, is the setting of criteria for evaluating the firms to be interviewed. What factors should the client take into account for a library project? The most important can be grouped into four categories: experience, quality of previous work, ability to do the job, and compatability between the architect and client personnel. Only one of these factors -- experience -- can be evaluated objectively, and even that factor is debatable.

The value of experience with a previous library building project depends on the comparability of the projects, and on the recency of the experience; i.e., the currency of the architect's knowledge of library issues. Obviously the architect's involvement with a small public library project twenty years ago has little relevance for a large research library project today, although the architect may think it does.

Even if you feel that experience with libraries is debatable as a qualification, you should agree that experience with buildings of the same general construction type and the same scale is highly desirable, and that experience with similar clients is a definite plus. If the library is part of an academic institution or a governmental agency, it is important that the architect know how to work in that setting and understand the motivations and the decision-making methods of that kind of client body.

Another area of extreme importance, but difficult to evaluate, is the success of the firm's previous work. You will want to determine if previous clients have been satisfied with the process as well as with the product, and to try to assess the overall quality of creativeness of the firm's work. You can look for evidence in the form of design awards, or publication in the architectural press, but you really must look to your own response to their work -- whether or not you, and all the other members of the selection group really like the architect's buildings.

The next group of criteria is the firm's ability to perform the project. This involves the expertise and talent of key personnel; the firm's work load on other projects; the degree of their interest in the project; and the availability of the necessary engineering and technical consultants.

The final group of criteria cannot be judged at all from the written requests for qualifications, but must be assessed in-person: this is the compatability or "chemistry" between the client team and the architect team. Are the architect's team members likeable, and seem to like and respect your people? Do they listen well, and express ideas and concepts easily? Do they seem to comprehend and support the objectives of the project, and appear intrigued by the challenge of meeting those objectives? Do they have a good sense of the character of the building you hope to create?

Probably, no firm is going to score perfectly on all these counts. The client team will have to decide which of the four major criteria -- experience, quality of work, ability, compatability -- are most important to the success of this particular project.

VI. SELECTING THE LIBRARY CONSULTANT

The methods of selecting a library consultant for the project are similar to those for selecting the architectural firm, but not usually so structured.

As for AE selection, direct selection of one particular consultant derives from the Librarian's acquaintance with the consultant from library circles, or from knowledge of the consultant's previous work with other libraries, perhaps reinforced by a few telephone calls to peer librarians. Typically the librarian asks the consultant for a resume and indication of the consultant's fee rates, makes an educated guess about the amount of assistance desired, and requests approval from the library's funding agency to employ the consultant for some part of the project, utilizing either library budgeted funds, institute planning funds, or project funds if they have been established.

Comparative selection can take place formally or informally. The informal method consists of gathering names from sources such as library literature or the Library Building Consultants List (published by the Buildings and Equipment Section of LAMA), telephoning a few who appear appropriate, and deciding among them. With the formal method, the library's higher authority issues an RFQ or RFP to as many consultants as can be identified. An RFQ (Request for Qualifications) is intended to elicit expressions of interest and statements of qualifications. An RFP (Request for Proposals) is more complex; it describes the nature of the project and its timetable, and asks the consultant to submit not only qualifications and rates, but actual proposals for accomplishing the project, with time and cost quotations. (In effect these RFPs ask the consultant to define his or her own tasks and methods, and establish a value for them). Either the RFQ or RFP may be followed by interviews and/or further negotiation of compensation or scope of work.

Regardless of the selection process, library consultants can be evaluated according to criteria which parallel those for architects, but are library-specific qualifications. These should include:

A. Experience - with planning for library buildings; as a library professional, manager or administrator; - as a consultant;

B. Ability to gather, assimilate, analyze and organize information, and communicate it to others;

C. Compatability with other members of the planning team, including the confidence of administrators and design professionals;

D. Availability to participate in the project at those times when needed.

The last criterion may be the most difficult, since there are so few people active in library consulting.

VII. SELECTING THE INTERIOR DESIGNER

Interior design may be included as part of the package of services offered by the architectural firm selected for the project. If it is, it can be evaluated in concert with the rest of the firm's qualifications. If, however, an independent interior designer is to be retained by either the architect or the library administration, selection can be made by processes similar to those followed for the library consultant. Direct selection can be based on familiarity with the designer's previous work. Comparative selection can be made by reviewing RFQ responses and design firms' brochures, or by examining responses to RFP's, and then looking at completed projects of the designer's firm. The evaluation criteria should also be similar to those for architects and consultants:

A. Experience with projects which indicate an understanding of the nature and use of libraries;

B. Ability - in design - in project management;

C. Compatability with client and architect;

D. Availability to perform the work when it must be done.

VIII. THE REDWOOD CITY CASE STUDY

We realize this is a quick overview of a fairly complicated set of roles, relationships, and decisions. If you have questions about any of this, please jot them down and hand them in, and we'll try to deal with them at the end of this session, or the end of the day.

At this time, I'd like to hand off to Jane Light, who will give us a case-study demonstration of the team-building process as it occurred in Redwood City.

PUTTING TOGETHER THE PLANNING TEAM--CASE STUDY OF ARCHITECT SELECTION PROCESS IN REDWOOD CITY

Jane E. Light

The selection of an architect and the process that Redwood City went through in developing its Civic Center Improvement Project is more an example of how a city may typically go about the task of selecting an architect and clearly defining the project than a candidate for emulation.

Redwood City has needed a larger, more modern main library for many years. The library and adjacent City Hall were built in 1939. The Civic Center complex, located in the struggling downtown area, also includes a police station and a fire station which was built in 1926. Several earlier attempts to build a new library had come to a halt because of lack of funds.

Redwood City is the only city on the San Francisco Peninsula with considerable space still available for commercial and residential development. Several large new retail outlets are bringing in substantial sales tax income and several new projects which would bring substantial income to the City are currently proposed. In 1983 the City Council initiated a utility users tax which generates over $2 million per year. Income from this tax has been earmarked by the Council for financing capital improvement projects.

In June of 1984 the Council approved a $7 million Civic Center Improvement Project that was to include construction of a new library incorporating the old historical fire station, remodeling of the City Hall and the existing library into City Hall offices, and minor remodeling of the police station.

That August the City Manager issued a Request for Qualifications (RFQ) to about twenty architectural firms. Some of these were firms which had expressed interest in our project and others were ones which the library staff or other city employees identified. At this point the new fire station was separated from the rest of the project since it would be at a different location. The RFQ stipulated that respondents must participate in a walk-through of all the affected buildings and comment about the design opportunities and problems presented in the project in their response to the RFQ. At my request, the RFQ gave architects the option of proposing either to be involved with the entire project or with the library alone. All but one of the responding firms were interested in the entire project.

A committee consisting of three Council members, the Library Board President, the Assistant to the City Manager, the Deputy Police Chief, and myself was appointed to select an architect to recommend to the City Council. The group named the Assistant to the City Manager as its chairperson.

The City received fifteen responses to its RFQ. Committee members were given a week to review them before meeting. The Assistant to the City Manager developed a form for members to use to rate each firm's response. Although it was helpful to have a form, each member of the committee defined the criteria somewhat differently. For example, one of the criteria was "time required." I ranked firms high if the schedule appeared to be realistic. Another committee member ranked firms high if the required time to complete the project was short. In retrospect, discussing the selection criteria and process before the RFQ went out might have resulted in a more focused selection process.

Nonetheless, it proved quite easy to agree on a list of five firms we would seriously consider for the project. After some discussion, each member of the committee voted for the five he or she believed should be on this short list. Several firms were named by most of the committee, and agreement was soon reached on all five. The committee then decided to issue a supplementary questionnaire to be returned before the firms were interviewed. While the architects worked on the questionnaire, some members of the committee made site visits to civic or public buildings recently designed by three of the architects under consideration which were within an hours drive of our city.

Although it was difficult for the Councilmen to find time to participate in these trips, the two who went on at least one visit found it to be a valuable experience. We learned much from talking to city officials who had recently completed extensive building projects. In addition, we were able to compare our reactions to the various buildings and receive information about performance of the architects which we might not have been given in a telephone interview.

At its interview each firm was given fifteen minutes to make a presentation. Questions followed. Members of the committee were frank and direct about specific concerns. For example, one small firm was closely queried about its staffing level and ability to handle a project of this size.

The supplementary questionnaire had included a question about current Bay Area costs for remodeling and new construction. This reflected the City's concern that the $7 million approved for the Civic Center Project and the new fire station might be insufficient. One firm, taking the risk of being killed for being the messenger bearing bad news, presented detailed estimates of the construction and remodeling costs for each type of building - library, police station, city hall - which indicated that the City had considerably underestimated construction costs and recommended that the City begin the project with a feasibility study. Other firms merely stated that the proposed budget was nomimal but that they could and would complete the project for the approved amount.

At the completion of the interviews, the committee narrowed its discusion to two firms, with a tentative preference for the firm which had recommended the feasibility study. The next step was reference calls to former clients - those who were listed as references and also some who were not. I made some of the calls and found people willing not only to comment on the firm but also to give helpful advice about other aspects of our project. Finally, about forty-five days after the committee first met, it decided to recommend to the City Council that Ripley Associates, a San Francisco firm, be retained to conduct a feasibility study for the project, and if the project proceeded to the design phase, that the firm be named the project architect.

The feasibility study took place between January and April, 1985. The Architect Selection Committee evolved into an oversight committee for the study. That process was a fascinating one to participate in and observe. In August of 1985, the Council approved a Civic Center Improvement Project with a budget of $10.25 million, including $6.8 million for a 45,000 square foot library which will rehabilitate the old, historic fire station and add about 38,000 square feet of new construction. Construction of the new library is scheduled to begin in September 1986 and be completed in January 1988.

Looking back at Redwood City's process, I can identify several points which can be generalized and applied to other libraries. First, it seems to be frequently the case that a library renovation, addition or new building is part of a larger city or county capital improvement project. In most cases, the library board and library director do not control the project and must endeavor to establish as much influence as possible over the architect selection process and other important steps in defining and carrying out the project. Clearly, the best methods of achieving that objective will vary, but the library partisans should realize that often the library portion of the project is key to gaining public acceptance of the entire project. This gives the library a good bit of leverage.

Fortunately, the City Manager's office involved the library board and director in the project from the very beginning.

Board President Walter Robinson, Jr. and I made the most of this involvement. We both made certain that we were thoroughly familiar with all of the responses to the RFQ. Since not all of the architect selection committee members found time to read each of the proposals, they listened carefully to our comments. In addition, I arranged some of the site visits, made reference phone calls and answered queries from the firms in absence of the Assistant to the City Manager. This active involvement resulted in the Board President and I achieving credibility and influence with the selection committee. We, of course, consulted one another frequently to compare notes and opinions and agreed closely enough to present a united library front in nearly all situations.

We also sincerely supported the goal of a civic center improvement project which was larger than simply a new main library. We saw ourselves as advocates for the library within the context of this larger project. We were therefore effective team members. Since library building activities are so frequently part of larger projects, understanding and supporting the entire project is an effective strategy.

In summary, I would encourage a library director or board member beginning an architect selection process to become fully involved even though the final selection is likely to be made by a City Council or other governing body. If the library building project is part of a larger civic center project, try to understand and support the project. Finally, realize that in these larger projects the library portion is often key to public approval and acceptance, and use your leverage to meet the community's need for an improved or new library.

FIGURE 3

ARCHITECT SELECTION RATING SHEET

CITY OF REDWOOD CITY

CIVIC CENTER ARCHITECTS

PRELIMINARY RATINGS SHEET

Name of Firm	General Competence		Related Experience	Time Required	Understanding of Project	Level of Commitment	Fee
	Firm	Team					

NOTES:

BEST COPY AVAILABLE

THE ARCHITECT

By Bud Oringulph

I am not sure how many of you may have been involved with library building projects before. Therefore, I would like to introduce you to architects and their engineering consultants as if you have had little experience in this regard. This introduction should provide some perspective on how architects and their engineering consultants function.

THE ARCHITECT

Perhaps the very first question is "Do you really need an architect at all?" Can you do it yourself? Perhaps all you need is a building contractor. This is a decision you must make at the outset. It depends upon the project. But realize that there are limitations on your time as well as legal regulations which require an architect to participate under given circumstances. The State of California has definite laws about this. Nonetheless, this is a decision you must make.

THE ARCHITECT TEAM

When services of an architect are requested, you may very well find that he will bring with him a number of engineers and other consultants. The client should be aware of who these people are and what they contribute to the project. Some of these disciplines may be "in house" - that is part of the architectural firm's staff while others may be independent firms under contract to the architect to satisfy the needs of your project. In addition to the architect, there can be as many as fifteen or twenty different types of consultants involved in a project. These could range from seismologists and geologists to soil engineers, mechanical, electrical and structural engineers and interior designers. Others may also be involved depending upon your program and project conditions and requirements.

Some of these folk, such as the mechanical, electrical and structural engineers and the interior designer will be involved throughout most of the project. Others, with more specialized expertise, will be on the scene for shorter periods. You may wish to meet those who are playing major roles as part of the interviews conducted to choose an architect. The project team, then, is composed of yourself, the architect, and these consultants along with any others representing you, the client.

WHO IS GOING TO BE THE CLIENT?

Before architects are interviewed, a decision must be made as to who the client is. Nancy has discussed this in her presentation. While you, the librarian, may represent the occupant of the building, the real client is the person or representative of the jurisdiction or agency which actually owns the building. This owner's representative is the person the architect must ultimately deal with and satisfy. Establishing who speaks for the owner is essential to the management of the project. The ability of the decision making process to function depends upon a clear determination at the very beginning of who has the authority - the last word - for the project.

WHAT IS YOUR NEED?

Projects often begin with a feasibility study to determine space needs. This may be most effectively done by a professional library consultant such as Nancy or Ray. They can assist you in determining space needs and exploring the range of options available to you. I would note that few architects really have this ability. We would be more useful, perhaps, in helping to determine whether or not an existing building can be remodeled or expanded, for instance, once the decision has been made that this is a viable alternative from the standpoint of satisfying other program requirements.

AFTER THE RFP

Nancy McAdams has described to you the RFQ (Request for Qualifications) and the RFP (Request for Proposal) process earlier this morning. So, let us suppose that you have issued an RFP. Please bear in mind that from an architect's standpoint, every time we respond to an RFP, it costs from $5,000-$25,000 depending upon the scope and complexity of the request. So, please furnish the architect with all the essential details about your project and be realistic in the information you ask the architect to supply.

Architects are interested in providing answers to your questions about their firms' personnel and experience with projects of a nature similar to yours. For governmental jurisdictions we will supply, for instance, the Federal government forms 254 and 255 which explain the qualifications and structure of the firm. Many academic and nonstate institutions have comparable forms they will substitute for these. We expect to tell you who we are, who our team is (consulting engineers and other specialists if needed) and what kind of experience we have had in the past that is pertinent to your project. You may also wish to ask specific questions about the scope of our current work load and our capacity to accomplish your project. These would be normal requirements to be answered in the RFP response.

Nancy has given you some good tips about the interview process with architects. Among other questions you may wish to have the design professionals address during the interview are those which have to do with special issues raised by your project. These often concern site and styles of architecture. You may also ask the architect to list and discuss any special issues that he or she sees.

In any case, structure your interviews so that they provide opportunity for getting better acquainted with the architect and his or her views of your project. Too often you will find that without proper guidance the architect will put on a dog and pony show, sometimes with elaborate audio visual aids and well rehearsed rhetoric.

If you have not specifically requested that the firm be represented only by the project personnel you will be working with, you may find the firm is represented by a public relations person who will have nothing to do with carrying out the project. He or she will tell you how great they are and all the things they have done in the past - but not much about what they plan to do for you.

In fact, if there is a key interview question, it is "What will you do for us, specifically?" Be sure to find out how well does the architect understand your project? How will he or she go about solving the design problems it represents? Is the team he or she proposes pertinent to your needs?

You may also ask about the architect's fees. Sometimes the responses are difficult to assess. If the scope of the project is poorly defined, it is very difficult for the architect to respond other than in general terms. However, if you have a well established project scope, a time line schedule for completion of the project, and a construction budget, it is entirely possible for the architect to present a fee to you that is somewhat more meaningful. However, I would have to suggest to you that the architect's fee should not be the bottom line criteria for selection - there are too many other important things involved. Besides, fees can always be the subject of negotiation once you have chosen the firm you think will best serve your project.

I would like to suggest that experience is particularly an important qualification from an architect's standpoint. The record of experience deserves to be closely reviewed. It may or may not be appropriate for your project. The size and type of projects completed can be compared with your project and significant parallels as well as differences discussed.

One of the most important criteria is the architect's ability as a designer. Look at his or her ability to solve problems in the past as demonstrated by other kinds of projects. I visited a library a week ago in Washington, D.C. where the client was particularly pleased with the library. It was the architect's first library, and he had told them that the first is sometimes the best because of the fresh approach. I will say that this may be true. But I think that you are always looking for an architect who brings you the kind of experience you feel comfortable with whether in designing libraries or other buildings. It is the architect's approach to design and problem solving that you are looking for.

WHAT IS THE ARCHITECT'S REPUTATION?

I think that there are many ways that you can judge reputation. What is the design capability of the firm based on past projects? A long time after you are gone from the project, the building will stand and the building will function as a library. It is particularly important that your view be unprejudiced, that the architect's view be fresh and for the long term - one that presents to you a program of flexibility and real design credibility. Does the architect design award winning buildings? Does he or she demonstrate design credibility: is his or her work devoid of architectural cliches that will quickly date the building?

In past work has the architect demonstrated cost control ability (we will talk more about that later on.) An architect without a clear understanding of the processes of cost maintenance during the course of design can lead you down a terribly difficult path. Determine what kind of qualifications he or she has in cost evaluation.

Who is on the architect's team? What are the qualifications and experience records of his structural, mechanical and electrical engineers? If there is to be an interior designer as part of the team, you should know his or her qualifications and record of experience. If the interior design firm is not a part of the architect's firm, you should know the terms of their association so as to understand the lines of communication, authority and responsibility - especially for cost control.

PERSONAL RELATIONSHIPS

Perhaps the most important factor in the architect's record of experience is the capacity for establishing and maintaining an effective personal relationship with client representatives. You are going to be working with this person and his or her team representative for several years - sometimes very intensely. It is important that you feel good about this relationship. You must feel that you can trust the architect. A kind of bonding should begin at the very beginning of your relationship. When you pull all of the pieces together and begin to compare your reaction to the various architects you interview, the differences in the capacity for developing a positive personal relationship between team members should become fairly obvious to you. It is when you find that two or three architectural teams are similar in this regard that difficulties arise in making a choice. It is then that you may have to rely on a kind of gut reaction.

AVAILABILITY OF THE ARCHITECT

You will also want to look at the availability of the architectural firm. If it is a small firm, say three or four people, can they handle your project as well as the other work in their office? Ask them to demonstrate how they plan to do this. If they are a larger firm, do they have adequate personnel available to provide you with the qualified staff you need for your project? Be sure you meet the design architect and the project architect for your work. Ask how much of their time will be available to you. What other projects will they be working on at the same time?

Ask also about response time. How much time do they anticipate giving to each of the major phases of the project? How fast will they react to a call for an unscheduled meeting to cope with an unexpected problem? How long will they take to compile and send out meeting notes which are vital to everyone understanding decisions made during the course of team meetings?

How about joint ventures? When are two or more firms better than one? Part of this depends upon the scope and nature of your project and upon local requirements. A small local firm may provide convenient contact and the support of a large firm located some distance away may offer substantial depth of experience and expertise. However, you must be sure to understand the nature of this association and establish who officially represents the joint venture for your project.

Joint ventures can turn out excellent work under the right conditions. They can also be a source of problems if they combine the wrong firms or if the lines of authority, responsibility and communications are not clearly spelled out. You must know which firm is going to be responsible for each part of the project and how all of the work is to be scheduled and accomplished. There is a difference between joint ventures which are "marriages of convenience" and those which are stronger in the aggregate than are the individual firms.

What about the location of the firms? How important is it that the firm is a local one? Again it depends upon the scope of your project and the availability of qualified local firms. You may find that you have a program that is particularly unusual and that there is an architectural firm in another state you would like to invite because of their expertise. If you do this, or if they ask to be considered, determine whether or not that architect can function from the distance of several hundred or thousands of miles. This may involve association with a local firm, establishing a local office or in some other well defined way. Do they have a license to practice in California? If not, how will this be taken care of? Remember that air travel may minimize the effect of distance to some extent depending upon the availability of air service to your community. Carefully weigh the advantages and disadvantages based on the firm's capabilities as well as the matter of location.

ENGINEERS AND CONSULTANTS

We have already noted that the architect's team will include a variety of engineers and consultants. These individuals add depth to the architectural staff. If you are building on the San Andreas fault - or near it - be sure the structural engineer has experience in designing structures for this area. The architect may have also added, under these circumstances, a seismologist or biogeologist who has particular understanding of conditions in your area. If your site or building presents special problems, be sure the architect is adequately supported in those areas needing particular expertise.

A landscape architect is another specialist frequently included in the architect's team. This person or firm may already be involved in other projects in your jurisdiction or on your campus and the architect is offering to use him or her as a way of guaranteeing continuity. Remember that there is a great deal of difference between a landscape architect and a gardener. Make sure that you understand that difference. Again, qualifications, training and design ability are the differences.

At times you may have other specialists. Lighting, for example, is one of these. The lighting specialist may or may not be a part of an interior design team. In any case, he or she brings particular qualifications for meeting the lighting requirements for your project. This may be both day lighting and artificial illumination. I do not need to tell you how critical lighting is to libraries and how valuable the services of a qualified lighting expert will be to your project.

Acoustics is another area of special concern to libraries. Therefore, the architect may include a specialist in this field to deal with potential acoustical problems arising in design. He or she will be particularly important if your project includes areas like meeting rooms, auditoriums and video studios.

The architect may also choose to have a special cost analyst as part of his or her team. If we are operating during a period when costs are running rampant, or if you have a particularly tight budget or unusual cost problems, this person will be of special value. Likewise, if you find the design architect you like best has a less than enviable record in bringing projects in on budget, you may want to add the services of a qualified cost control specialist.

Normally, all of these consultants and specialists will be a part of the architect's team. Their services will be a part of the package provided by the architect and covered by a common agreement. Two specialists who may not be a part of that arrangement are (1) the interior designer and (2) the library building consultant, although these are sometimes included as well.

THE INTERIOR DESIGNER

There are four ways to approach interior design services. First, the architect may include these talents with his own qualifications and the interior designer and the architect may be one and the same person. Second, the architect may have an interior design staff member or interior design department in the firm that have these capabilities. The third method would be for the architect to include an independent interior designer as a part of the services offered the client - just as structural, mechanical and electrical services are provided. Finally, interior design services may be provided by an independent firm, such as Marshall Brown, which you interview and contract with separately. It is important that you understand these different ways that interior design services can be supplied and the pros and cons of each.

THE LIBRARY BUILDING CONSULTANT

While the services of a qualified library building consultant, like Ray Holt, may be offered as a part of the architects package of services, it seems more likely that you will want to make this choice yourself. Besides, the consultant may have been retained well in advance of the architect to prepare feasibility studies or help write the building program. If this occurs, the consultant's contract should be extended to work through the entire project including design and construction. His or her experience and expertise continues to grow in value as the project proceeds.

SERVICES TO BE PROVIDED FROM THE BEGINNING

Jane noted that when they began the library in her city that they were not entirely sure what the scope of the project was to be. So the first phase that her architect was retained for was to evaluate where the building should be and what it would cost. This was all to be done in conjunction with their library consultant, Ray Holt. So consequently, the first step was a phase agreement which determined that the project was going to consist of a remodeled and expanded fire station and would cost $6.8 million dollars. With this decision the architect could proceed with the second phase of the work.

Like Jane in Redwood City, it is quite possible that if you do not know the scope of your project, you should retain your architect for a phase one analysis to determine what the scope of the program would be. This can define the scope and the cost of the program. After that, work can proceed in an orderly manner.

If the scope of the project is well established in advance, a preliminary study of this kind will not be needed. Instead the architect's work will begin with a study of program requirements and the conceptualization of the building. As a first step in this process, the design team will analyze and finalize any program data which will define the spaces included in the project. It is important to note again that the library building consultant is an integral part of this action. All of the spaces are defined including the furniture and equipment to be included. This becomes the architectural program.

PHYSICAL DESIGN: CONCEPT PHASE

The second phase is the physical design itself. This can go through a number of stages depending upon the needs of the project. For instance, if you have to return to an electorate to finance the project, you may wish to put the design process on hold at some point after the plans have proceeded to the point where the architectural design has been determined and the general layout established sufficiently to provide an adequate basis for a reliable cost estimate. Sometimes this is referred to as a conceptual design which defines the idea of the building, the general relationships and mass. It is really a diagram, if you will, of the program itself. This may be sufficient to take to the electorate or the board of regents, etc., to demonstrate the scope and cost of the project.

SCHEMATIC DESIGN

Schematic design is normally defined as containing all of the information that you need to determine the character and scope of the program. That would include room relationships, the mass relationships, the materials that would be used both inside and out, the types of equipment that would be provided and a much more articulated cost of the program itself. You would define the building on its site and describe the building itself so that you are clear what the building will look like, and how it will function. Schematic specifications will describe the basic structural, mechanical and electrical systems to be used as well as materials proposed for cladding the exterior and interior walls. Sufficient information is given by the schematics to provide the basis for a reasonably accurate cost estimate. At this point you can either go for the monies needed to complete the project (if they have yet to be made available) or, if project funding allows, decide to complete architectural work.

DESIGN DEVELOPMENT (Preliminaries or Preconstruction Documents)

The next stage of architectural design takes the schematic drawings and specifications and develops them in much greater detail. For instance, in schematics a particular wall may have been identified as a glass wall. In this phase the architect determines what kind of frame is going to be used and what kind of glass is to be specified. Engineering drawings show how the structural, mechanical and electrical systems are going to be inserted into the structure. Instead of a single line representing a wall or partition, walls and partitions are shown with double lines to indicate comparative thickness. Doors appear between rooms and furniture plans begin to evolve. As successive sets of drawings develop the plan becomes more and more set. Suggestions for change are more difficult to accommodate because of the complexity of the drawings and the complicated decisions they represent. At the conclusion of this phase, the details of the building are firmly established and later modifications will be extremely limited. Based on the more detailed plans and specifications, a revised and more detailed cost estimate may be provided.

CONSTRUCTION DOCUMENTS (Working Drawings)

Once the design phase has been completed and the owner has approved the drawings and specifications, and authorized the architect to continue, work begins on construction documents,

41

sometimes called working drawings. These construction documents provide all of the information necessary for the contractor to bid or to give you the cost of the construction. The construction documents emerge as detailed plans and specifications. Together these documents define and describe every component of the building from floor materials and structural materials to the mechanical systems. Detailed drawings show how every piece is to be put together to form the building. When completed and approved, these documents become the legal documents governing the construction of the building.

BIDDING

Sometimes projects are bid, sometimes they are negotiated. This will be determined by your jurisdiction or agency. In either case, the Construction Documents will be the basis for building contractors price. Occasionally projects might be considered as a separate piece of work to be done while architectural drawings are being completed or other conditions satisfied. In any case, the owner eventually must choose the contractor, often on the basis of the lowest qualified bid or negotiated price. This constitutes the award of bid.

ARCHITECT'S RESPONSIBILITY DURING CONSTRUCTION

The architect is responsible for following the project through to completion, acting as your agent during the course of construction. He or she acts to assure you that the building is being constructed in substantial conformance with the construction documents that you approved.

LIBRARIAN'S ROLE AND RESPONSIBILITIES

During the course of all of this you are the third leg of the triangle. (You are one leg, the architect is another and your library building consultant and other specialists comprise the other leg.) Your participation is vital. You should know specifically what is happening at all times; there should be no surprises. A regular series of team meetings should be initiated at the very beginning. You should understand where the project is going and how much time it will take for each phase. The architect should prepare such schedules for you along with the costs for each phase. Communication is the key and it is important that you know what is going on and how schedules are being met. Talk about what is happening all the time. This may require weekly meetings during certain stages of the project as well as special meetings from time to time.

Making decisions is a part of your responsibilities. In other words, if there are three ways to solve a design problem, the architect should describe the three options and their pros and cons. These options may include design implications, appearance, choices of materials and first costs vs. maintenance and other long term cost implications. Insist on this information before making decisions.

CONTRACTS

One or more contractual agreements will be required to make all of this happen. These contracts will be between the owner and the architect as well as between the owner and any specialists retained independently. To this end the American Institute of Architects has developed a number of forms which have been tested and are in wide use. I recommend these to you rather than trying to use some other less specialized form of agreement or writing one from scratch. The architect can supply these forms and suggest appropriate changes if they are needed to cover special conditions.

THE INTERIOR DESIGNER

By Marshall Brown

Buildings as complex as most modern library buildings always require the expertise of many consultants. In addition to the architect and his immediate team composed of the electrical, mechanical, structural and other engineers required to supplement the building development, it is often desirable to obtain the services of a qualifed interior designer.

The qualifications for the practice of Interior Design are not nearly so well defined as are those required to practice Architecture and Engineering. Unlike the design professionals, called Architects, who are required to be trained at technical colleges or schools of architecture prior to practicing the art of designing buildings, all that is required to work as an interior designer in the State of California is the desire, and a few clients. Skill, training and experience have no basis in the requirement. Too often individuals who feel that they have a flare for color attempt through social contacts, or some other equally obscure path, to tackle projects requiring far more than surface application of color. This lack of formal professional qualifications has, over the years, developed fear in the hearts of many excellent architects as to what the interior designer might do to the carefully thought-out structure. Gradually many states are requiring academic degrees and office experience as well as the passing of qualifying examinations before permitting the practice of Interior Design. In my opinion, California cannot act quickly enough to develop this requirement.

I entered the field through a five year architectural program at North Carolina State University leading to a Bachelor of Architecture degree. This was followed by five years of apprenticeship and two years of experience in the office of a large architectural firm. In my office at least 50% of my staff are graduate architects.

A successful interior is far more than decoration. It is the careful development of functional relationships and space planning to create responsive and visually exciting interiors that incorporate an expression of the architecture design into all the construction details. Any successful building begins with the understanding and development of the workplace to be housed.

Successful buildings, which meet the test of time, are those which support and respond to the needs of their users, both during initial occupancy and subsequently as needs change!!!

Designing from the inside out is an idea whose time has arrived. Interiors are now accepted to be just as complex as pure architecture and must therefore encapsulate the same formal concerns.

Thus has evolved the highly sophisticated field of Interior Design. In contrast to the interior designer, it would generally be agreed that an "interior decorator" would take a finished space or building and apply surface decoration to the area whereas an interior designer would be involved in forming the space and determining the quality of the built environment and its functional relationships. The Interior Designer should be a skilled professional having developed an indepth understanding of the work environment and the psychological impact of the interior relationships of the built environment on the users. Design is never applied but results from the juxtaposition of architectural basics, such as materials, light and form.

As you search for an interior design firm to perform this important task in the remodeling of an existing structure or in the development of a new structure, the path is not nearly so clear as that of researching the selection of the licensed architect. I would suggest the following as a partial guideline:

A. Make sure that the firm has completed projects of a similar size and complexity.

B. Insist that the designer representatives to your project and the principal designer for the project be clearly defined in writing and that the work you have reviewed is the work of that designer.

C. Review the professional qualifications of the staff assigned to your project.

D. Be sure of the exact role the designer had in the development of the projects reviewed. Involvement in the development of lighting or the design of customized cabinetry could be an indication of an indepth design as opposed to a surface decoration.

E. Make certain that the firm has staff sufficient to complete the assigned work. Very small firms can often be a problem in this regard.

F. Make certain that past projects were completed within the limits of a mutually acceptable schedule.

G. Be certain that budget limitations were carefully monitored.

H. Be assured that the designer will work tirelessly to develop an effective line of communication with staff - that he or she will LISTEN!

I. Be certain that previous clients were treated as the most valuable resource of information during the development of the project. Likewise be sure that staff directives were incorporated into the design.

J. Verify that the Interior Designer worked enthusiastically as a member of a design team - contributing to a common goal. Isolationists are a handicap in the development of any project.

K. Be certain that the Interior Designer responded quickly with clear solutions to any problems that did arise during the design, construction, installation or even after occupancy.

L. Look for a designer that sought new, innovative and cost effective solutions to problems - and did not just accept the past experience of similar facilities.

M. Look for a personality that you feel you will enjoy, as the design and construction period will take several years of close association.

Once you have found this amazing professional, what can you expect this person to do for the project, you might ask? I have compiled a minimal list as a guide. (At the discretion of the Staff, some of the items could be assigned to the architect, if not delegated to the interior designer.)

A. Work with the staff and consultants to develop an understanding of the goals of the staff and thereby define the direction of the total project.

B. Assist the Architect and Staff in establishing the format for Project team meetings, presentations and schedules.

C. Review the requirements outlined in the building program with the Staff and the Consultants.

D. Consult with the Architect in evaluation of the various concepts that might evolve in the preliminary studies as these studies relate to the interior environment.

E. Make studies with appropriate tabulations as to volume capacity, staffing limitations, etc.

F. Formulate preliminary budget forecasts as to the funds necessary to outfit the building at the earliest possible time in the design process and continue to update throughout the project.

G. Investigate general lighting possibilities at the earliest feasible time in the project development.

H. Supply guideline specifications for all interior surfaces for inclusion into any documents from which construction might be forecast.

I. Provide assistance in determining effective ways to achieve desired acoustical levels.

J. Prepare sample color boards, assemble catalog cuts of furniture and other presentation materials to illustrate the scope of colors, textures, and furniture under consideration.

K. Develop an interior signage system.

L. Develop working drawings for all cabinetry.

M. Develop interior study models.

N. Develop renderings.

O. Develop prototypes of custom furniture designs, especially for the circulation desk.

P. Prepare furniture placement drawings.

Q. Prepare an electrical plan indicating all electrical, telephone, electronic, and security requirements and transmit to the architect and the electrical engineer. Continually update drawings as changes are made.

R. Prepare relocation drawings for any furniture to be reused and specifications for refurbishment if appropriate.

S. Prepare finish schedules and specifications.

T. Develop bid documents for carpet, casework, furniture, graphics and other specialized items such as plants.

U. Work with artists to develop specific requirements for incorporation of an art program.

V. Supervise bidding.

W. Supervise installation.

X. Prepare a punch list at the end of construction and monitor until the building conforms to specifications.

It is generally true that the amount of the design fee can be more than offset through the competitive bidding of all movable furniture and equipment that is specified by the designer. In addition, the library will also provide a far more pleasing environment for the patrons.

And what is this wonderful person going to cost, you might ask? The fee would certainly vary with the size and complexity of the project, but a reasonable range would be $1.50 - $3.00 per square foot of the space to be built or remodeled. It is my opinion that an Interior Designer should never be compensated on the basis of value of furniture specified. If this method is used the Interior Designer might decide that there is little reason to spend time on areas not resulting in purchases. Likewise you should never believe that a manufacturer is going to give you much in the way of design if you accept his offer to sell you all the furniture.

Perhaps the most reasonable method would be on a "time and material" basis to a guaranteed maximum fee based on the size of the structure.

TURNING NEEDS INTO SPACE REQUIREMENTS

ACADEMIC LIBRARIES

By Nancy R. McAdams

The translation of the institution's perception of a need for library space change into a numerical statement of needs involves three major tasks: determining what the overall needs are, quantifying the needs, and then calculating the space necessary to meet those needs. These tasks are outlined below.

A. DEFINING BIG-PICTURE NEEDS, OR "HOW MUCH LIBRARY TO BUILD IN THIS PLACE?"

1. Library context, or "What's this library supposed to do?"
    - a. Nature of academic institution
    - b. Role and mission of library
2. Drivers of change -- curricular change, automation, institutional growth, library growth.
3. Planning time frame, or "How long is the new space to last?"
    - a. Academic planning process -- ability to project change accurately
    - b. Funding prospects -- for space, acquisitions, and staff
    - c. Administrative support -- willingness to commit scarce resources
4. X-Y-Z questions, or "What's to be accommodated?"

    X - size of collection (storage capacity)

    Y - size of clientele (user capacity)

    Z - staff size (staff and operations capacity)

Determining the answers to these questions involves predicting the future. For the library planning effort to be successful, the answers must mesh with academic planning, institutional aspirations, and fiscal realities.

B. ESTIMATING THE SPACE REQUIRED TO MEET THESE NEEDS

1. Setting collection growth target size (volume equivalents)

    a. Prospects for sustained acquisition

    b. Growth mitigation measures -- deacquisition, storage, microform, resource sharing, etc.

    c. Unpredictables -- major gifts, programmatic shifts, mergers

2. Setting reader accommodation target -- ratio of student population

    a. Kind of academic programs to be supported

    b. Kind of students to be served -- behavioral differences, motivation, time available for library use

    c. Alternatives to the library (the competition)

3. Setting staff size

    a. Functional changes -- services and processes

    b. Efficiency -- location of services and processes

    c. Organizational change -- management levels

4. Identifying other space needs

    a. Related services to be accommodated in the library building -- bibliographic instruction, instructional media, computing, records management, duplicating, microfilming, etc.

    b. Unrelated functions to be accommodated in the building -- auditoria, food service, offices, etc.

C. CONVERTING NEEDS TO NUMBERS WITH SPACE FORMULAE

1. State supported schools -- different "standards" for University of California system, state university system, and community colleges are used to assess need for funding

2. Private schools -- ACRL standards for college libraries, advice and observations

3. Space formulae for conventional components of the library

  a. Books - stated in volumes per square foot, varying 10-15 depending on size of material, shelves per section, range spacing, cross-aisle width

  b. Wellman standards for maps, microforms, manuscripts, documents, sound recordings, display periodicals, etc. - stated in items per square foot and square feet per item

  c. Readers - stated in square feet per reader seat. Usual space allowance of 25 square feet builds in space for worksurface, chair, and movement past the station

  d. Staff - stated in square feet per FTE disregarding function and status, or in varying allowances of square feet per level of employee

D. CONVERTING NEEDS TO NUMBERS BY DERIVING YOUR OWN NUMBERS

1. Collection space stated by storage medium. Measure existing, sample capacity, determine growth, calculate future requirements

  a. Bookstack sections -- double face, single face

  b. Cabinets -- card catalogs, microforms, media, vertical files, etc.

  c. Other -- four-post archives shelving, special shelving for folios, etc.

2. Service space -- determine by observation of existing (own or others), projected to new conditions

  a. Counters -- circulation, reference, reserves, etc. -- number of staff, simultaneous public use, machine space, records space, backup space

  b. Card catalog and/or online catalog -- simultaneous public use, machine space, space for user's belongings

c. Copiers, reader/printers, etc.

3. Process space -- determine by observation of existing (own or others), projected to new conditions.

  a. Circulation shelf work -- truck space, staging

  b. Technical services -- truck space, holds, backlogs, files, records, reference materials, shared terminals, etc.

  c. Special collections -- sorting space, preservation space, exhibit preparation, etc.

  d. Administrative space -- according to campus norms

E. HOW NOT TO DO IT

1. Inflating the existing spaces (a little more of everything) -- perpetuates inadequacies and inequities

2. Applying a magic multiplier (twice as much of everything) -- ignores economies of scale and balance

3. Compiling staff requests for "wants" as opposed to "needs".

The determination of space needs must be explainable, defensible, and completely justifiable according to the library planner's best professional judgement.

F. WHAT TO DO WITH THE NUMBERS

The quantified space needs represented by the numbers developed according to the methods above constitute an integral part of the proposal to be submitted to higher authority to initiate the building process, and of the building program document which forms the information base for the architect's design work.

TURNING NEEDS INTO SPACE REQUIREMENTS

THE PUBLIC LIBRARY

By Raymond M. Holt

So you live in an over-crowded library building! Books fall from the shelves and onto the floor. The public fights over the few available chairs, and staff members have established squatter's rights on every square inch of usable space. Light glares from windows in some places while flashlights are standard equipment elsewhere. Every electrical outlet is home to extension cords snaking across floors and up and down walls. As for acoustics, someone has suggested that you invoke the local airport sound abatement regulations. Showery weather calls for a bucket brigade while winds whistle dolefully around windows and doors. Passing book trucks set off seismic meters, while cracks in plastered walls grow ominously in length and number. Because there is no place for more equipment, you fear the age of technology must pass you by.

The deficiencies of the building are readily apparent to you. But how do you convince others, especially those who control the financial resources needed for corrective action? While emotional appeal is important, cold, hard facts are still basic. To be persuasive, you sense that you must be prepared to document the facility inadequacies you see and know. This brings us to the needs assessment process which should be viewed as a primary step in the total facility project program. It offers a splendid opportunity for acquiring a wide range of information which can form the basis for good programming and facility planning.

Here are some of the answers a Facility Needs Assessment study analysis can provide:

A. It documents what you already know and suspect about the existing facility;

B. Space inadequacies can be converted into meaningful space requirements;

C. The ability of the existing facility to meet future space requirements and programmatic needs can be assessed;

D. Alternative means of achieving an adequate library facility can be considered.

Without this kind of information supported by appropriate documentation and presented in a logical and reasonable manner it is much more difficult to provide convincing answers to the multitude of questions that are virtually certain to arise. Further, much of the information gathered for the Needs Assessment analysis is basic to the building program itself.

To avoid possible accusations of bias, the needs assessment process must be carefully constructed. Work needs to be fully documented to assure decision makers that the information and conclusions presented are valid.

While you may gain some valuable insights from studying Needs Assessment analysis done by other libraries, your's must be unique fitting your particular library community and situation. There are few, if any, shortcuts. It is hard work and requires time and dedication. Measuring, counting, estimating, recording, analyzing and concise presentation of data means effort. But the results are worth the trouble.

Now, how should we begin?

Let us take the quick and dirty approach first, recognizing that there is not always time to come up with a full needs assessment study. First, two methodologies which do not work:

A. Unfortunately, we do not presently have a formula which can be conveniently applied to estimate space requirements. For many years there was a rule of thumb figure of 1/2 square foot per capita. However, this was based upon library buildings of the early thirties, long before public library services, collections and operations made their current demands on space. Any library building project based on this assumption is almost certain to fall considerably short of actual space requirements based on contemporary public library response. Today, collections are diversified and grow faster than ever before, staff space requirements continue to increase with the introduction of more technological gadgetry, and user space demands come in a greater variety. Group programming, nonprint media, automation and a host of other factors have doomed the old guideline to obsolescence. Hopefully, there will be a new one to replace it one of these days. So far, however, no acceptable formula exists.

B. A second frequently used quick and dirty method is to base space requirements on the amount of space provided by other libraries in communities of a similar size. Unfortunately, this method does not take into account all of the many differences which exist between libraries and their constituencies. Population in the service area is but one of the many determinants. For instance, it does not take into account the relative size of the collections or the differences in levels of usage. Another shortcoming of this comparative device is the difficulty in finding sufficient examples of adequate and recently constructed library buildings in communities of approximately the same size.

While far from being accurate, a better estimate of space needs can be obtained by a few simple mathematical calculations for collections, seating and staff. For instance:

A. Divide the total number of volumes to be housed by 10: this allows ten volumes per square foot;

B. Multiply the number of user seats by 30 square feet;

C. Multiply the number of staff to be provided with offices and workstations by 150 square feet;

D. Add these three figures and assume that they represent 85-90% of your net square footage requirements; the remaining percentage is for miscellaneous spaces;

E. Multiply the net square footage for collections, seating and staff by 10-15% to arrive at the square footage needed for miscellaneous areas: lobby, circulation desk, other public desks, delivery, storage, and the like. The more complex the building, the greater the margin needs to be. For instance, a branch library building may be well within the 90% limit while a large headquarters building is apt to have more specialized spaces not accounted for in the specifics of our formula. Storage in a headquarters library, for instance, may be a fairly substantial space. Obviously, if your library has exceptional space requirements for some unusual use, extra space will need to be added. Otherwise, this crude estimate should turn out to be within a tolerance of 10-15%, plus or minus, of the figure you will reach in the more exhaustive process of creating an actual building program.

F. To arrive at the gross or total square footage for the building (the actual size of the building), divide the total of your calculations by 75%. For instance, if the total space estimated for collections, seating, staff and miscellaneous amounts to 30,000 square feet, divide this number by 75% (representing the net to gross ratio) which results in a total, or gross building size, of 40,000 square feet. The plus or minus factor of 10% would result in a predicted space requirement of roughly 36,000-44,000 gross square feet.

If you employ any shortcut method, please be aware of its deficiencies and allow for them by a disclaimer.

Let us return to the more complete needs assessment process which, short of the preparation of the actual building program, is the most positive and accurate method for arriving at a library's space needs. This is because space projections consider the actual elements your library facility must house to serve your particular community: collections, users, services, staff and miscellaneous spaces. Such needs assessment analysis begin with the reality of the present library and into the future based on anticipated growth factors.

Perhaps the first step is to determine what the specific goals are to be for your particular needs assessment study. Is the study to concentrate on evaluating space requirements only? Or will the condition of the existing facility be included? Will the study investigate possible alternative solutions to the space needs requirements? For how many years into the future should space needs be projected?

The second step is to determine who will be responsible for the gathering and analysis of data. Depending upon the scope and complexity of the project, a team may be selected composed of certain staff representatives. A qualified library consultant may be retained to assist. If the building as well as the space it provides is to be evaluated, architectural and engineering services will need to be arranged for and financed.

You may, of course, wish to proceed more informally by assuming the full responsibility for the study with limited help from staff. This can be a successful approach providing you have time to devote to it.

I. GOALS AND OBJECTIVES

The needs assessment study should begin with a careful examination of the library's goals and objectives and a consideration of the library's long-term service potential within the identified library market area. Failure to consider at the outset what the library should become - or is apt to become in the future - reduces the needs assessment task to an exercise in arithmetic. The end result merely determines how much more space will be needed to do the same things in the same old way. This is hardly a defensible position at a time when public libraries are facing unprecedented challenges that demand consideration of the entire range of possible services and technologies. Because of space implications, particular attention must be given to long-term plans for branches and other types of extension services. Information such as that gathered in conjunction with the Public Library Planning Process is invaluable in shedding additional light on possible changes in library services, collections, staffing levels, and users.

II. PERSPECTIVE

Now, two or three other observations. The first of these concerns what might be called the perspective or point of view from which the needs assessment should be conducted. We like to think the most positive stance is that which we call "User Oriented." Lew Young, BUSINESS WEEK Editor in Chief calls it "Staying close to the customer to satisfy his needs and anticipate his wants." The authors of Search for Excellence note that "excellent companies" (and, paranthetically from our observations, excellent libraries) "really are close to the customers;" (i.e., users, patrons whatever you call them) "other companies talk about it; excellent companies do it."

Needs assessment analysis provides a special opportunity for reviewing the library's understanding of its public. Further, library requirements can be reviewed against the profile of existing user needs and the future level of user wants anticipated. To bring this about, those responsible for needs assessment must possess accurate profiles of both the users and the potential users in the service area along with an in-depth knowledge and understanding of the community. Demographics take on new meaning here and help provide a necessary frame of reference for estimating space requirements.

III. NICHEMANSHIP

Still another brief observation is also triggered by the findings of the Search For Excellence authors. You will recall that they described something they referred to as "Nichemanship" which they found to be a strong component of company success. By finding a particular "niche" in the market place where they are better at something than anybody else, successful companies tailor their offerings to a specific target group. This gains them special customer orientation and market advantage as well as recognition. The concept of the boutique in successful department stores was used as an example.

Public libraries are often dissuaded from creating and operating such "niches" because they fear the cost or are concerned about detracting from service to the general public. Yet, libraries with strong service elements to special groups such as the economic community, art groups, senior citizens, preschoolers, genealogy, local history, etc., usually find that such "niches" do indeed bring them distinction, approval and additional support. In any case, the needs assessment process provides an ideal time and circumstance for considering whether your library should carve out one or more such niches as a means of attracting and better serving new users, improving access to special collections and services and creating a new image.

IV. THE PROCESS

Needs assessment findings require three basic steps:

A. Detailed itemization of what is occupying the existing library space;

B. Projection of the optimum amount of space these items should occupy (see Appendix 10); and

C. Projection of space requirements for one or more future dates which will accommodate intervening growth.

This process must establish a reliable body of information concerning the existing situation and conditions. Establishing this basic information requires time, a certain amount of expertise, and a capacity for objectivity. For these reasons, assistance may be sought from someone experienced in needs assessment.

A second requisite is the choice of a target date for which space and other requirements will be projected. It is usually handy to have such dates coincide with those used by the local planning authority for its projections of population and other factors. Space projections are ordinarily made for 10 to 20 years, even though the potential life of a building may be 50 years or more. The further away the target date, the more inaccurate the figures are likely to become.

V. COLLECTIONS

Space analysis often begins with the collections. Counting collection materials is not as simple as it sounds. Rather than get into a protracted discussion of methodology, I would refer you to pages 151-157 of Keyes Metcalf's Planning Academic and Research Library Buildings. There are no reliable shortcuts to the laborious job of counting the books on the shelf and measuring the space they occupy. Remember, the goal is to determine how much space is actually required for the books on the shelves - not for those in the shelf list or in circulation.

Watch out for mathematical errors. Accuracy counts and records should be maintained which will enable you to review the basis for the figures anytime in the future. Keep all work sheets; be sure they are carefully labeled so that you can retrace your steps many months - or years - hence should the figures come into question. Assign the counting to a selected group of staff who will undertake the task conscientiously. Analysis should consider each segment of the collection such as adult fiction, adult nonfiction by broad classification, reference, any special collections, etc. And the same for children's collections.

Similar figures must then be assembled for nonprint materials and for collections which are in filing cabinets, map cases, etc.

Seating is the next component to be counted. Set up a simple table which allows for a separate count of chairs at tables, carrel seating and lounge seating. Then, going from area to area, count the number of seats in each category. Seating at index tables, AV stations, microform readers and other equipment should be kept separate since space requirements will vary.

Next, count staff to be accommodated. Keep separate those who require offices from those who will be at workstations such as in technical services. Itemize function by function: Administration, Public Services, Technical Services, etc. Also, count the number of public services desks and the maximum number of staff to be accommodated at each at any one time.

Add to these figures the number of people to be seated in conference and other meeting rooms. Do NOT include space for restrooms or custodial areas since these are normally included as part of the gross rather than the net square footage. By the way, do not forget general staff accommodations such as lunchrooms; estimate the maximum number of staff using the lunchroom at a given time for routine breaks and meals - not for special functions.

Once this information has been gathered it should be compiled into a table. For instance, the number of adult fiction books, nonfiction, reference, etc., number of seats at tables, carrels, and so forth, number of staff to occupy offices, workstations, and so on until everything on your inventory has been listed.

To estimate the optimum amount of space required for the current collections, seating, etc., each of these items must be multiplied by a square footage factor. Pertinent formulas are provided in Item 3 in your packet. Some of these can be multiplied directly. For instance, each reader seat at a table requires 25 square feet (that includes chair and table).

However, collections are another matter. A rough estimate can be gained by allowing 10 volumes per square foot. A more accurate methodology requires conversion of the number of volumes into the number of sections of shelving required to house them. The simplest way is to divide each general collection by the 336 volumes which can be shelved in a double faced section (DFS) of shelving. The number of such units of shelving are then multiplied by 15 square feet per unit (this allows for the 3' wide shelving, two feet deep and a three foot aisle - but no transverse aisles). To take a simple example, a nonfiction collection of 33,600 volumes will require 100 double faced sections. Each of these shelving sections in turn will need 15 square feet, or a total stack area of 1,500 square feet. Note that this does not account for transverse aisles. For collections, such as reference and children's where different heights will be used, the capacities will vary. These capacities are given in Item 3 of your packet (Appendix 10).

Once all the calculations have been made you may need to add a small percentage as an adjustment factor for things not fully accounted for in your calculations. The total of these figures then represents the optimum net square feet you would need to satisfactorily house the existing library collections, seating, staff and other functions as they presently exist. Divide this figure by .75 to estimate the total gross square footage of the facility. This process accounts for space which cannot be assigned library functions - hence nonassignable space - occupied by such things as stairwells, duct shafts, mechanical equipment rooms, custodial work and storage areas, corridors, elevators, walls and partions, columns, restrooms and so forth. Now this figure can then be compared to the building you presently occupy with the difference representing your current documented space needs.

The next step is to determine how much space will be needed at some point in the future. Population projections for that date will be needed to make these calculations. The number of volumes in each collection category should be projected by calculating the anticipated rate of acquisition less discards and then balanced against population expectations. Collection size may also be based on achieving a particular number of volumes per capita. Seating requirements can be figured on a per capita basis generally in the range of three to five seats per thousand population in the library service area. Staff projections will require consideration of probable levels of usage, changes in service patterns and fiscal reality. List pieces of equipment to be used by the public, microform readers, public access terminals, index tables, P.C. Terminals, listening and viewing stations, and so forth. Note numbers of people to be seated in conference rooms (both public and staff) and in larger meeting rooms along with any other special purpose areas such as a local history room, story hour room, etc.

Once the list is complete, estimate the space required for each element. The total represents a generalized estimate of net square feet. If your figures seem soft, you may wish to add a small 10-15% fudge factor for things you have forgotten or hard to determine elements such as storage. The total represents your projected net square footage needs which should be converted by dividing the net square feet by 75% to indicate the actual size of the facility you need by the target date.

By the time you arrive at your projected facility size for the target date, you will realize that estimating space requirements is a complex and far from scientific exercise. Nonetheless, a well documented space Needs Assessment study is essential since so many decisions depend upon it.

VI. EVALUATING THE EXISTING FACILITY

Let's move on to evaluating the existing facility beginning with the site (Appendix 11). Site evaulation is usually directed at:

A. Appropriateness of the location such as accessibility, suitability, construction constraints, soils, water table, neighboring uses;

B. Ability of the site to support a building of a given size along with parking and landscaping.

No library facility question is apt to raise community temperatures more than site. Therefore, this issue must be approached cautiously and with as little emotion as possible. Item 5 in your packets concerns site selection and will provide some helpful information. Factual answers to questions such as the following may help you evaluate your particular location:

A. Is the site located in an appropriate area or is it adjacent to land uses which are incompatible with library use?

B. Is the site easily and safely accessible to the maximum number of potential library users in the service area?

C. Is the site located at or near the crossroads of its optimum service area.

D. Are there other nearby facilities to help generate the kind of traffic associated with library use?

E. Does the site permit the library to be highly visible and easily identified?

F. Are there serious site constraints inherent in the location such as excessive unrelated traffic (trucking, for example), noise, high energy costs, poor orientation for use of solar energy, strong wind venturies or other weather phenomenon, potential for flooding, or adverse soil conditions for foundations?

G. Is there sufficient room on the site for the proposed building or expansion of the existing structure including landscaping, required setbacks, and parking? (Item 11 in your packet has some criteria for estimating parking needs.)

Now, as to the existing structure itself. While a thorough evaluation must utilize the services of architects and engineers, there are some fairly visible clues which any of us can recognize as possible signals of deeper problems meriting the cost of such examination. Here, again, are a few questions you can ask:

A. Is the building free of architectural and structural barriers to the handicapped?

B. Are there persistent leaks in the roof, walls, and/or basement?

C. Is there visible cracking of interior and/or exterior walls?

D. Do floors feel shaky when book carts are rolled across them or people walk by?

E. Are there visible deflections in the floor as judged by shelving ranges which dip and rise?

F. Are there cracks in foundations or basement walls?

G. Are there serious drafts around windows and exterior doors, possibly accompanied by some leakage during storms?

H. Is there flooding or seepage into the basement - mildew or mold on books, etc.?

I. Does a fine dust, seemingly from the ceiling, settle on things anywhere?

J. Are ducts and pipes in open ceilings properly insulated, or is the insulation old, frayed or missing?

K. Are there adequate drains in the restrooms, custodial areas, etc. to take care of flooding when fixtures are stopped up or pipes break?

L. Does rainwater and/or snowmelt drain off the roof and premises quickly?

M. Do you find yourself frequently calling for repairs on plumbing or electrical?

N. Does wiring snake across floors and overload circuits? Do you dread plugging in a new apparatus or appliance because there are no more outlets or for fear a fuse will blow?

O. Is the electrical panel board (where fuses or breaker switches are located) hot to the touch?

P. Does your heating, ventilating and cooling system keep all parts of the building comfortable regardless of the season?

Q. Are energy bills excessive?

R. Are lanterns, flashlights, miners caps or other paraphernalia needed to find one's way through portions of the library and book stack?

S. Are there long waits at restroom doors?

T. If your library is located where winter brings snow and ice, does the library seem to suffer from frozen water pipes more often than other structures in your area? Do avalanches of snow and ice threaten to fall from the roof on people as they enter and leave the library?

U. For libraries located in seismic zones 2, 3, & 4 - and that's all of California,

1. Is your shelving properly secured and braced?

2. Is your structure designed and constructed for your seismic zone?

If this little quiz turns up some doubts as to the adequacy of your building, the next step is to secure the assistance of a knowledgeable professional to conduct a more thorough examination. This should result in a written report. (By the way, until this has been done, it is probably premature to disclose your own doubts and fears since they may be brushed off as "scare tactics.") If possible, the formal evaluation should include a "code review" which will enable architects and engineers to determine the adequacy of the building insofar as the applicable building, plumbing and electrical codes, etc. are concerned and to estimate the implications and cost of meeting current codes. This is particularly important if consideration is being given to remodeling or expanding the facility. Their report will provide fairly hard evidence of existing conditions. This can have a profound effect on future decisions and serve as a major determinant in finding the most cost effective solution to your building problem.

VII. HISTORIC MONUMENT SYNDROME

I want to digress slightly here to address another condition which seems to cloud the issue of improving library buildings in many of our communities. I call this the Historic Monument Syndrome. As one interested in local history, I fully appreciate the efforts of those who are working hard to preserve buildings which represent a vital part of our heritage. However, when your library building becomes the object of the historic preservationists and the results cloud your facility goals, I can well understand your frustration. There are no sure-fire ways to win this battle, but here are a few suggested tactics.

First, avoid becoming embroiled in any emotional or self-righteous response. Instead, concentrate on the task of separating the fact of library service from the building which houses it. Remind people that the public library, including yours, is a "service", not a structure of some kind. Unfortunately, structure and service become almost inseparable in many minds after a period of decades. One can be infected with the historic monument syndrome without a realistic understanding of the actual purpose and use of the library. Little wonder, then, that people who maintain such an image make an assumption that the public library's destiny in their community is somehow tied inseparably to a particular building. This is especially true where the image of the library in the community has been allowed to deteriorate into that of an ivy-covered building filled with musty tomes and ancient oak chairs and tables occupied by a few users who alternately snooze and read. Somewhat less vulnerable, perhaps, is the library which pursues an aggressive program complete with busy people and contemporary services that receive abundant publicity. To this end, every effort must be made to publicize the complexities of public library services and especially such areas as automation and non-print materials which clearly have requirements that were not anticipated and may not be easily or economically provided for in a historic building.

To find a rational response, it is essential that you understand the reasons why people venerate the building housing the library. As part of this process, distinguish between a building which is on a historical register because of events that transpired within its walls or on the site and a structure which is to be preserved because of architectural merit. Your approach may vary somewhat depending upon the reason for monumentalizing your building.

Some buildings, of course, receive protection because of their age or general association with the community. Sometimes veneration is based solely on certain architectural features - perhaps a pleasing window seat, a beamed ceiling, a stained glass window, oak wainscoating, or whatever. Perhaps the building is venerated because it evokes nostalgic memories: "I recall those happy wintry days when I spent hours in the children's room curled up in that little nook by the fireplace, surrounded by books and free to roam my private fairy tale world." Or, perhaps it is because "my parents brought me here when I was only four years old;" or maybe you'll find out that "my grandparents loved to use this library." All such information helps you to construct rational responses while remaining sympathetic to the feelings that are expressed. Breeding antagonism by negative reactions can only hurt your case.

Of course a public library and a building of historical importance are not necessarily incompatible so long as there is sufficient community support and funding to assure the library adequate space and operating budget. Sensitive architects can remodel historic buildings and can even expand some of them, overcoming many of the disadvantages while preserving the tangible and intangible monumental aspects of the building. An architectural study to determine the feasibility of remodeling and expanding a historic building is of vital importance - and a useful part of your needs assessment analysis.

When the future of library service is clearly at odds with remaining in a building which is to be preserved as a historical monument, the goals of both the library and the historical preservationist may actually be better met by moving the library service to another location and reusing the old structure for some other compatible purpose. Creative librarians have found a variety of such alternative uses which prove acceptable to their communities. Some of those which come to mind include offices for local historical societies, local history museums, art galleries, community arts and crafts, community meeting center with space for small group performances, recitals, etc., expansion of local government offices, etc.

Another alternative is to explore the commercial re-use of the structure, perhaps on a long-term lease arrangement which guarantees historical reconstruction and preservation and possibly, provides some limited income to the library. In this day of nostalgia a small library building might be converted to a boutique, clothing store, restaurant, office space, or other commercial use. Look at what they are doing with railroad stations, for instance! Use your own imagination if you are plagued by this problem. Sometimes the exploration of other reasonable alternatives relieves the pressure which otherwise builds to force the library into making unfortunate compromises in facility development.

By concentrating on careful analysis, avoiding emotional entanglements, fully understanding the motivation of the would-be preservationists, publicizing the complex space requirements for contemporary public library service, and insisting on consideration of reasonable alternatives, the library director is more apt to find an objective, rational and acceptable remedy for the Historic Monument syndrome.

Let's return now to the needs assessment process.

VIII. ALTERNATIVES

Having gathered and analyzed all of the needs assessment data, you can substantiate the amount of space you need now and at a predetermined point in the future. You also have evaluated the condition of the existing structure and its site. From this information, you can progress to a consideration of the major alternatives, assuming this is to be an end product of your survey.

As a first alternative, you may want to consider whether or not your space needs can be met by measures short of a major facility program such as:

A. Revise goals and objectives to reduce the scope of collections, services and staff;

B. Reduce collection size by weeding and storage, then stabilize by capping the collection at a given size;

C. Utilize space saving technology such as compact storage shelving, microforms and automated systems;

D. Rearrange existing functions to achieve more efficient use of available space;

E. Enter into more cooperative and/or contractural arrangements to substitute services provided by others;

F. Convert space occupied by a service with a lower priority to a more critical use.

If none of these options appear feasible, the choice then narrows down to:

A. Remodeling;

B. Remodeling and expanding (adding on);

C. Rehabilitating (converting) an existing structure originally designed for another purpose;

D. New construction.

Now, which of these alternatives is best for your library? Again it seems appropriate to compare each alternative's response to certain questions such as:

A. How much of the needed space can be gained?

B. Which of the shortcomings inherent in the present situation can be overcome? Tackle this one by listing each of your pertinent findings about the building and indicate how each would be affected by remodeling, expanding, etc.);

C. How will each alternative affect the usefulness of library space?

D. What will be the affect on public access and usage?

E. How will the delivery of library services to the community be affected?

F. How will staff productivity be improved?

G. How will security, life safety and collection preservation goals be met?

H. To what extent will the provisions of applicable building codes be achieved?

I. What affect will each alternative have on interim operations? Will the library be forced into temporary quarters?

J. How long will it take to complete each alternative?

K. How long will this solution meet projected library space needs? (How long before we have to face this space situation again?)

L. Are there other advantages or disadvantages?

M. What are the estimated costs for each of the possible alternatives?

For ease in comparing the answers, I would suggest they be integrated into a matrix. Figure 1, taken from the Wisconsin Library Building Handbook, shows how such a matrix might be constructed.

IX. COST ANALYSIS

Now, in case you haven't noticed, one of the goals of this needs assessment approach is to postpone weighing alternatives by their dollar and cent signs until other factors can be addressed. Once money rears its Medussan head, all logic and unemotional consideration of factual data seem to disappear. Librarians, like Perseus, must invoke the help of the gods themselves to retain control after cost estimates are on the table.

Cost estimating is still another aspect of needs assessment. (I refer you especially to the papers of fellow faculty members David Sabsay, Nancy McAdams and Bud Oringdulph on this subject.) At this juncture, the simplest technique is to apply a reasonably reliable average square footage cost to the estimated size of the building. (Dave, Bud and Nancy have some specific advice on this subject.) Needless to say, the cost of constructing a library building - let alone remodeling or expanding a library structure, varies greatly from one locale to another and from one type of construction to another. My colleagues will offer some valuable advice on how you can arrive at a reasonable cost figure, sources to use, pitfalls, etc. Suffice it to say that we have seen cost estimates for new library construction range from $65 to $125 per square foot in one state and from $75 to $200 per square foot in another. Given such ranges, it seems wise to turn to professional sources for guidance, as my colleagues suggest in their presentations.

Before leaving this topic, however, I want to impress on you the necessity for knowing exactly what is covered by your projected square foot costs. Be certain that this figure includes all project costs, if you wish to have an adequate construction budget and avoid future shortfalls in financing. Project costs should include: site work, construction, landscaping, furniture

BEST COPY AVAILABLE

FIGURE 4

COMPARISON OF BUILDING PROJECT ALTERNATIVES

TABLR 3-1

FORMAT FOR A COMPARATIVE CHART ON BUILDING PROJECT ALTERNATIVES

FACTOR	ALTERNATIVE I Remodel	ALTERNATIVE II Remodel & Add	ALTERNATIVE III New Building at Main St. & Elm	ALTERNATIVE IV Conversion of Existing Building ("Old Towne Market")
1. Physical Condition:				
a. Structure	Major cracking of foundation & walls; roof must be replaced; floor weak under stacks.	Same as for I. Load-bearing wall on side where addition would go must be replaced.	New.	Adequate. Leakage around skylights. New floor covering necessary. Redecorating required throughout building.
b. Mechanical	Furnace must be replaced; cooling system also inadequate.	Same as for I. Would have to replace entire system to service addition	New.	Capacity is estimated as less than 1/2 of that required.
c. Plumbing	Frequent repairs required; all fixtures need to be replaced.	Space in addition could be used for new restrooms; present restrooms could be converted to other uses.	New.	Number of fixtures inadequate; code requires twice as many.
d. Electrical	Outlets few in number and poorly located; occasional trouble with overloaded circuits; wiring and switch panel at capacity.	Same as for I; would need new panels for addition with undetermined amount of rewiring necessary in old building.	New.	Wiring adequate; will need numerous outlets - some in floor; new lighting required.
2. Site and Location	Site (Main Street at Fir) meets basic criteria of an accessible location.	Same as I; site too small for addition unless two residences are acquired on north side.	Site as prominent as present one.	Good location with parking and exposure to vehicular and pedestrian traffic.
3. Usefulness of Space				
a. General Comments	Remodeling will add approximately 15% to the available space: Present: 6,925 sq. ft. Remodeled: 7,965 sq. ft. including basement and children's room. New entrance will be required with ramps to both levels; fixed walls upstairs restrict flexible use. Extra staff will be required to supervise basement area.	Leave basement as is; add 4,000 sq. ft. for children's room and adult reading room; with new entrance total: 10,965 sq. ft. Existing building will remain inflexible due to fixed walls; new area will be more flexible in use; ramp may be required between addition and existing building.	Build 12,514 sq. ft. needed for now and next 10 years; provide for addition to be built later for ultimate growth. All space designed for maximum utility.	Old Towne Market has approx. 10,000 sq. ft. of usable space; by acquiring adjacent land on east side, a future wing of up to 5,000 sq. ft. might be possible. Column spacing may limit flexibility of stack arrangement.
4. Future Expansion Comparison of Net Sq. Ft. provided with projected need:				

FACTOR	I. Remodel	II. Remodel and/or add	III. New Building	IV. Convert Existing Building
Needed now: 10,625 sq. ft. 10 years from now: 12,514 sq. ft. 20 years from now: 14,735 sq. ft.	7,965 sq. ft. An addition of up to 3,000 sq. ft. is possible: Total net sq. ft. = 10,965.	10,965 sq. ft. Further Expansion considered impractical.	Build 12,514 sq. ft. to meet needs for next 10 yrs. Add 2,500 sq. ft. wing. Total net sq. ft. = 15,014	10,000 sq. ft. Add 5,000 sq. ft. wing. Total net sq. ft. = 15,000
5. Provisions for the Physically Handicapped.	Extensive remodeling required, including new restrooms, ramps to both entrances.	Restrooms and entrance provided in new addition at ground level; ramp to old building will be necessary.	All provisions designed into construction.	All provisions designed into remodeling.
6. Interim Conditions	Various areas will be closed from time to time with much shifting of collections and temporary work stations, etc., with possibility of closure when mechanical and electrical systems are replaced. 5 months to construct.	Same as with I; Addition will be built while existing structure is being remodeled. Estimated construction time: 6 months.	No interruption of service except for one week to move. Estimated construction time: 9 months.	No interruption of service except for moving. Estimated construction time: 8 months.
7. Estimated Costs				
Site Acquisition	None	$25,000	None if Community Center site is used; preferred site estimated at $42,000.	Old Town Market priced at $135,000 but would offer $100,000; adjacent lot for future expansion = $20,000 if bought now. Total = $120,000-$155,000
Remodeling	7,965 sq. ft. @$20.00=$159,300	6,925 sq. ft. @$20.00=$138,500	None	10,000 sq. ft. @$20.00=$200,000
New Construction	None	3,000 sq. ft. @$40.00=$120,000	12,514 sq. ft. @$40.000=$500,560	None
Total Initial Cost:				
Site	None	$ 25,000	$ 42,000	$120,000-$155,000
Construction	$159,300	258,500	$500,560-$500,560	$200,000-$200,000
Total	$159.000	$283,500	$500,560-$542,560	$320,000-$355,000
20 Years from now:	New building of 16,000 sq. ft. @$40.00=$640,000	New building of 16,000 sq. ft. @$40.00=$640,000	Addition of 2,500 sq. ft. @$40.00 = $100,000	Addition of 5,000 sq. ft. @$40.00 = $200,000
Total for 20-year Program:				
Initial	$159,300	$283,500	$500,560-$542,560	$320,000-$355,000
Future	$640,000	$640,000	$100,000-$100,000	$200,000-$200,000
	$799,300	$923,500	$600,560-$642,560	$520,000-$555,000

70

BEST COPY AVAILABLE

and equipment, legal expenses and fees for professional services. Leaving out any of these elements will make a significant difference in the square footage costs estimates and future funding goals. Remember, too, that your estimated square foot costs must contain an inflation factor projected through the year in which construction will be completed and the building occupied.

Once the estimated square footage cost is arrived at, it is a simple arithmetical task to multiply it times the number of square feet to be constructed. Where the project includes remodeling, a separate figure should be derived for that portion of the building based on the nature of the work to be done.

Well, we've covered a lot of ground in the consideration of needs assessment. Those of you who have been involved in such studies can add much practical advice from the wealth of your own experience. Suffice it to say that the needs assessment study can be both the pivotal point and the springboard for your facility project.

A MENU FOR BUILDING PROGRAMS

By Raymond M. Holt, Library Consultant

I would like to approach the preparation of the building program as a medium of communication among members of the project team. It can be likened to a restaurant menu which communicates the nature of available foods to hungry diners: the more accurately the menu describes the dishes the more certain you can be of your choices. Like a menu, the building program is a powerful communications tool.

In fact, I would go so far as to say that a thorough going building program lies behind virtually every successful library building. Such a program describes:

A. The library's objectives

B. Space requirements

C. Functional relationships

D. A narrative description of areas

E. Technical requirements

F. Information on related subjects such as site, cost and schedule.

Not to be forgotten however, is the fact that preparation of the building program provides a truly unique opportunity to project the library in all of its aspects into the future.

When we embark on the grand adventure of preparing for a library building project, we are somewhat in the position of Dr. Seuss' young Gerald McGrew, who's ambitions were told in the story If I Ran the Zoo. Like him, by opening the cages and unlocking the pens of "this is the way it has been and, thus must always be" that reside in our minds, new concepts are possible. Constructing the building program should provoke our minds to free themselves of the constraints of the physical spaces in which we have become accustomed to providing library services. This opportunity comes rarely and should be seized upon with a vengence. Unfortunately, all too many building projects neglect this fateful serendipidous occasion in the name of tight scheduling. All the fun, excitement and imaginative qualities are then squeezed out. In return the building program becomes little more than a fatiguing exercise in estimating space requirements.

So I plead that you insist on taking at least a little time to consider what your library can be when set free of present constraints.

I. OBJECTIVES OF THE LIBRARY BUILDING PROGRAM

Before discussing the particulars of the building program menu, we should talk for a moment about the objectives of the building program and some related matters.

The purpose of the building program is to provide information which the architect and interior designer require to design the library facility in your institution or community. This information is equally essential whether the project involves remodeling, an addition, the rehabilitation of another structure or the construction of an entirely new library building. This primary objective should control the content of the building program and shape its format and presentation.

The building program also serves as a checklist for use during the design phases. During the review of drawings and specifications, the program becomes a compendium of facts and figures against which the architectural provisions can be evaluated. Of particular importance are such details as collection and seating capacities, numbers of offices and workstations, and functional relationships. This use of the building program as the primary governing document for evaluation of plans accentuates its importance and should influence the program format.

Before dealing further with the content of the building program, it is important to note that the very act of preparing the program is an invaluable exercise in planning for the Librarian and staff.

A. Preparation of the building program is a planning vehicle which forces the Librarian and staff to identify long term service, collection development and staffing goals within the context of the served community, whether academic or public;

B. Problems which may arise from growth and change in services, collections and staffing can be anticipated and dealt with;

C. Space requirements that may have been projected in a previous needs assessment study can be reviewed, confirmed or modified; and

D. New organizational structures for services and staffing can be considered.

When insufficient time is given the preparation of the building program, potential problem areas often go unnoticed, are avoided or consideration postponed. More often than not the failure to cope with such matters in the programmatic stage means that they will rear their ugly heads during the course of design when even less time is available for considering alternatives. This leads to hasty and oft-times ill conceived decisions or undue delay in the architectural design process. Here are some typical issues which we frequently encounter that should be resolved in programming. The list is indicative; you can - and should - add many questions to this little list.

A. Will the staff continue to be organized in its present configuration or, will the staff be reorganized into new departments reflected in a different number and variety of offices and workrooms?

B. What new collections, services and functions is the library apt to incorporate in the next 10-20 years?

C. Will the number of public service desks change?

D. How is automation affecting: operations, staff workstations, public services, bibliographic access, reference services, communications, office routines?

E. How will the various forms of non-print media be provided for in-house use as well as circulation; will such media be distributed throughout the collection or centralized?

These are only representative questions to start your thinking. Time does not allow a more complete listing. But it should be clear that the alert librarian will find questions at every twist and turn of preparing the building program. To be effective, the building program must be constructed around these solutions, not simply be a record of how things are done now under what are conditions different from those that will pertain upon completion of the project.

II. SCOPE OF THE BUILDING PROGRAM

The written building program covers every facet of the library from its collections and services to details on staff office and workroom requirements. For each of these broader elements, the following should be described:

A. Space requirements

B. Functional relationships

C. Internal environment needs

This is the essential information required by the design professionals. If you do not provide it in the form of a building program, then the design professionals must acquire these details during the period of design - a course of action which may result in delays, misinterpretations of needs, and, ultimately, a lesser solution than might have been possible if the program had been properly prepared and presented.

III. WHO PREPARES THE BUILDING PROGRAM?

Before discussing the particulars of the Building Program Menu, let's take a moment or two to discuss various ways in which the building program may come about.

More often than not, building programs are the product of the Librarian and staff. Some very good programs evolve this way - but many more poor ones are produced due to factors such as the lack of staff expertise in this area, insufficient time and energy expended on the effort, failure to understand the objectives, scope and/or importance of the building program, or a misconception that the architect already knows all that is required.

Other building programs are prepared by or with the help of a library building consultant, a person experienced in program preparation and the architectural processes which depend upon the program. While this method is more apt to lead to a satisfactory building program, it is not a guarantee of excellence. Quality still depends upon a number of variables including the information provided by staff and the commitment and experience brought to the project by the consultant.

Architects also prepare building programs. Again these vary enormously in quality. Because of time and budget constraints, architect-prepared programs tend to be limited to the data most essential to the design processes. Architects assume, as perhaps they should, that the data provided by the library staff is accurate and represents well-founded decisions. All too often, as we've already described, this may not be the case. Because of time constraints, the essential programming question "why?" may not be raised often enough to evoke viable options.

In preparing building programs architects often use the typical data-gathering methodologies including interviews of key staff, observation, and assemblage of statistical data on collections, seating, etc. Depending upon the time available and the programming philosophy of the individuals, such data may be supplemented by adjacency figures, flow charts and other diagrammatic forms. However, the resulting building program is only as valid as the information provided the architect and the degree of understanding and communications between the architect and the library staff.

Some architects depend upon a process known as "charetting" as a basis or adjunct in their programming effort. This involves concentrated sessions stretching over several days when library staff and architects meet to decide upon program elements. The quality of these programs depend upon the architect's abilities and insights as well as the amount of advanced preparation done by staff. Bud Oringdulph is a master of the charetting process and I suggest that those of you interested talk to him.

Still another source for program preparation is the space analysis or space planning firm. While the concept may seem logical, we have found that programs produced by such firms often lack understanding of library objectives, procedures and programs. Space planning companies seem better suited to programming office and industrial buildings.

Unfortunately, we have encountered still another programming source. On several occasions we have found that a hard pressed library administrator has assigned responsibility to a person because of qualifications he or she mistakenly thinks important to the process. In one instance, it was the head of the mathematics department with expertise in automation. In another case the mantel fell upon the shoulders of a voluble English professor. A third program was the product of a graduate student who also supervised the paging operations in a public library. While programs thus produced may be remarkable for mathematical accuracy, grammar, syntax, vocabulary and the like, they lack necessary concepts and information.

IV. MAKING SPACE PROJECTIONS

A clear statement of space requirements is one of the most essential ingredients in the building program menu. Space requirements must be provided for every item to be included in the library facility: user space, collections, staff and auxiliary space such as meeting rooms and storage. The sum total of these spaces represent the size of the project. Hopefully your building project will be aimed at providing space to house your library for a number of years hence. This means that requirements and space needs must be projected for that period. To provide uniform data it is essential that a target date be clearly identified and adhered to. Sometimes more than one date will be required - ten years, twenty-five years, etc.

Space projections, of course, are much more than mere mathematical calculations - or at least should be. Here are some of the procedures which you might employ when determining future space needs.

> A. Envision the probable characteristics of the users at the time of the target date and identify the needs which the library may conceivably be called upon to supply;
>
> B. Determine how the library can best be organized to provide the materials and services which will be needed between now and the target date;
>
> C. Construct an organization chart to identify the positions and numbers of staff required by the target date;
>
> E. Using the present collections as a base, determine the growth which must take place to meet future community requirements by the target date; test these against current budget and acquisition rates;
>
> F. Translate probable use patterns into the types and number of user accommodations (seating, study rooms, other facilities) which the library may be expected to provide;
>
> G. Based upon your estimates of staff, describe the kinds of staff work areas which will be needed and the number of people who will probably be employed in various capacities;
>
> H. Visualize the kinds of special resources and meeting areas which the public is apt to need and expect the library to supply;
>
> I. Project what your best judgement tells you is most apt to be the result of the continuing technological revolution in automation and the communications industries as it relates to your library and community.

Obviously, responding to questions such as these will involve many educated guesses as well as require research and introspection. Likewise, estimating space requirements will call for resolution of many procedural and operational questions since solutions will vary in their space implications.

As to the amounts of space required for various pieces that must be dealt with, a brief table of some of the more common things is included as Item 3 in your packet (Appendix 10). Incidentally, Item 10 in your packet (Appendix 11) provides an outline of the basic subjects to be considered, quantified and projected in the Building Program.

V. USING FUNCTIONAL RELATIONSHIPS (BUBBLE DIAGRAMS)

Now we come to functional relationships, the second major menu ingredient.

> "When I use a word," Humpty-Dumpty said, "it means just what I choose it to mean - neither more nor less!"
>
> (Lewis Carroll)

And so it is with the writing of building programs. When you use a word - especially one which has a library-related connotation, you choose it carefully to mean just what you choose it to mean - neither more nor less. But, as Lewis Carroll had Humpty-Dumpty declare, the problem with words is that in spite of our very best efforts, they remain subject to interpretation and end up with a variety of possible meanings. This is especially true when the reader comes from an entirely different discipline or background and must relate words to his or her own realm of training and experience.

In the case of building programs, we often find that describing even simple concepts and operations becomes treacherously involved and convoluted. When building programs depend entirely upon words to describe the way that collections, services and operations should relate to one another, the risk of misinterpretation is significantly increased.

To avoid this, a device which is often referred to as the "bubble diagram" has proven most useful. Using circles, ovals and other simple geometric forms, the bubble diagrams when properly employed can substitute for hundreds, if not thousands, of words while conveying a more accurate message to the design professionals. Further, preparation of bubble diagrams forces library staff to think through and come to an agreement on how functions are to relate to one another long before concepts begin to solidify into architectural drawings and specifications. Bubble diagrams become an excellent decision-making tool providing opportunity for considering a variety of possible solutions to any given problem. This approach can be used for small, intricate areas within a building as well as for the major areas. The bubble diagram has the further advantage of concentrating attention on function since the sizes, shapes and other physical requirements of objects are largely eliminated. Focus is on how things might work in the most effective and efficient manner irrespective of physical inhibitions.

Be assured that buildings that work well are not produced overnight, nor by happenstance. Rather, they are the result of careful programming based upon the embodiment of clear-cut functional relationships. Such information depends, in turn, upon the program writer's understanding of the objectives and subtle nuances of library functions and the myriad interrelationships of activities and operations which often go unnoticed. The lack of such an understanding is almost sure to result in the transmission of a fuzzy as well as incorrect image of the library's needs to the architect.

In the plainest of language, functional relationships might be most accurately defined as "what goes next to what." For this reason, bubble diagrams are often referred to as "adjacency diagrams." The bubble diagram is the means used most frequently to tell the design professionals what functions and things we want next to one another. Occasionally we find architects who substitute a matrix format to illustrate adjacencies. However, while the matrix table of adjacencies has a place in programming, it lacks the visual power of the bubble diagram.

Before going further, perhaps it should be reiterated that the shape of geometrical figures used in bubble diagrams is irrelevant to the eventual shape of the space to be created. Likewise, the size of the geometric figures is relevant only to the degree that a larger figure usually indicates something which will require more space than a function or object which is represented by a smaller figure. More important by far, is the juxtapositioning of the geometric forms since this is the way relationships are expressed. These relationships are shown in Figure 5.

A. Two figures not touching indicates two distinct and separate functions;

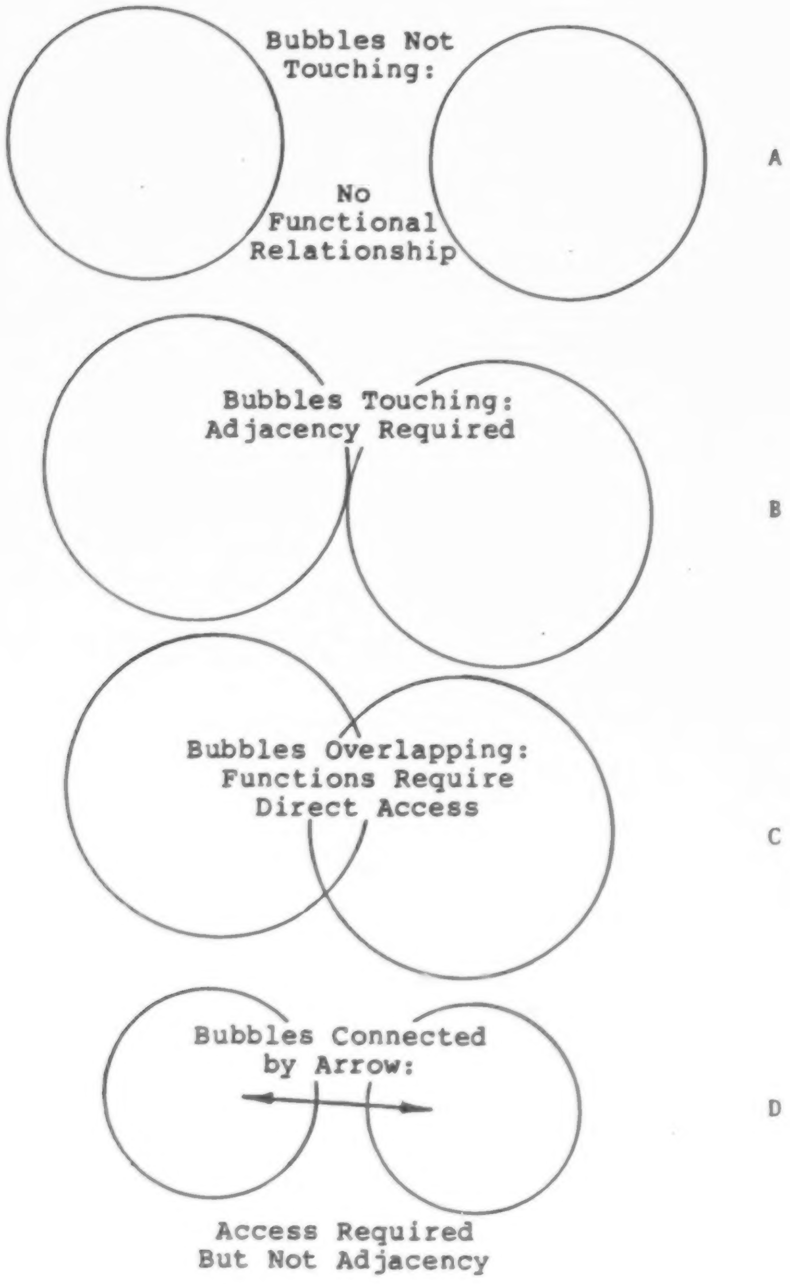
B. Figures touching indicate separate functions which must be next to each other;

C. Overlapping figures indicate functions which must be accessible one from the other;

D. Figures connected by arrows indicate access is required, but not necessarily immediate adjacency.

FIGURE 5

INDICATING RELATIONSHIPS THROUGH BUBBLES


Bubbles Not Touching:
No Functional Relationship
A
Bubbles Touching: Adjacency Required
B
Bubbles Overlapping: Functions Require Direct Access
C
Bubbles Connected by Arrow:
Access Required But Not Adjacency
D

Before continuing, it might be well to indicate that the bubble diagram can take more than one form. For example, Figure 6 shows another type in which relationships are expressed mainly by circles connected by lines rather than through the overlapping of the figures. For today, however, we will concentrate on the fundamental bubble diagram.

Preparing functional relationships or bubble diagrams, requires the programmer to first conceptualize the ideal or desired relationships of most (if not all) of the things that will occupy a given area. This includes intangibles such as traffic patterns created by users, staff and movement of materials as well as objects that will be located in the space. Obviously, this can best be done when the mind is free to conceive of how functions might relate ideally in the absence of customary restraints.

The term "conceptualization" is used advisedly because this ability to see functional relationships in one's mind's eye is fundamental to the preparation of bubble diagrams. The capacity for imagining how spaces and things might best relate is the programmer's most important tool.

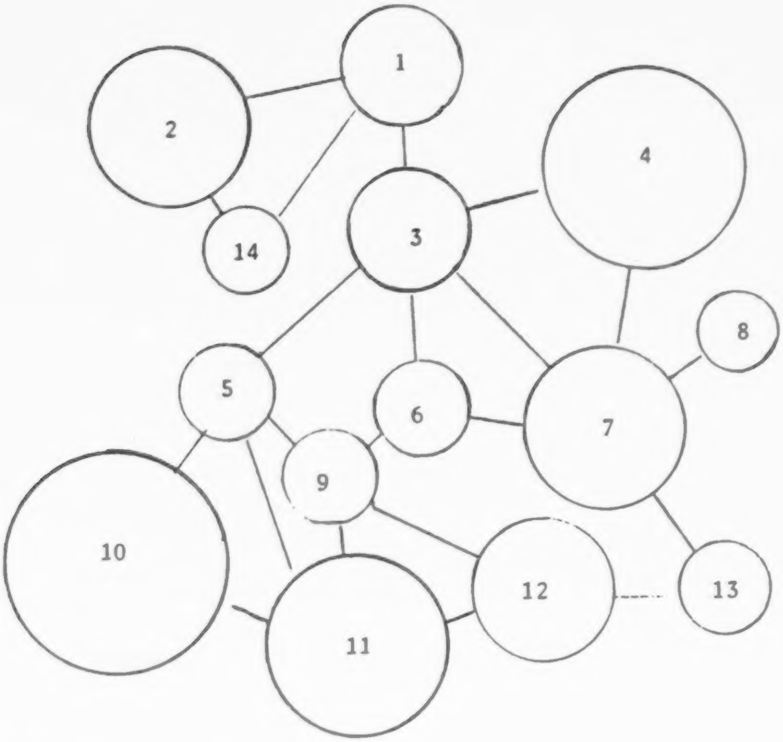
Because it is often difficult to see beyond the immediate surroundings and conditions, it may be helpful to begin our exercise today by discussing relationships which pertain to a non-library facility. For instance, let's consider an airport terminal - a facility which most of us have seen in a variety of shapes, sizes and complexities. Boiling down the functions of an airport to their essence will result, I believe, in agreement that the basic function of the terminal is to relate a form of transportation, namely aircraft, to the user, including crew, passenger and cargo. Presumably all that is necessary for this function to occur in the simplest of circumstances is a location which can be reached by both the aircraft and cargo. Given appropriate loading access, the basic function of loading and unloading can then take place. In the early days of aviation, this was accomplished in grain fields, and later dirt landing strips and small sheds providing temporary shelter for awaiting passengers and cargo.

These basic functional relationships can be presented in a bubble diagram such as shown in Figure 7. Only two bubbles are needed: one for the aircraft, the other for the passenger. The overlapping of the two circles designates the location where the interaction of these functions occurs. From this simple relationship, today's air terminal has evolved.

As the complexities of air transportation grow and the volume of traffic increases, what began as a simple interchange process has evolved into a complex operation involving an ever-increasing number of functions. For instance, in Figure 8

FIGURE 6

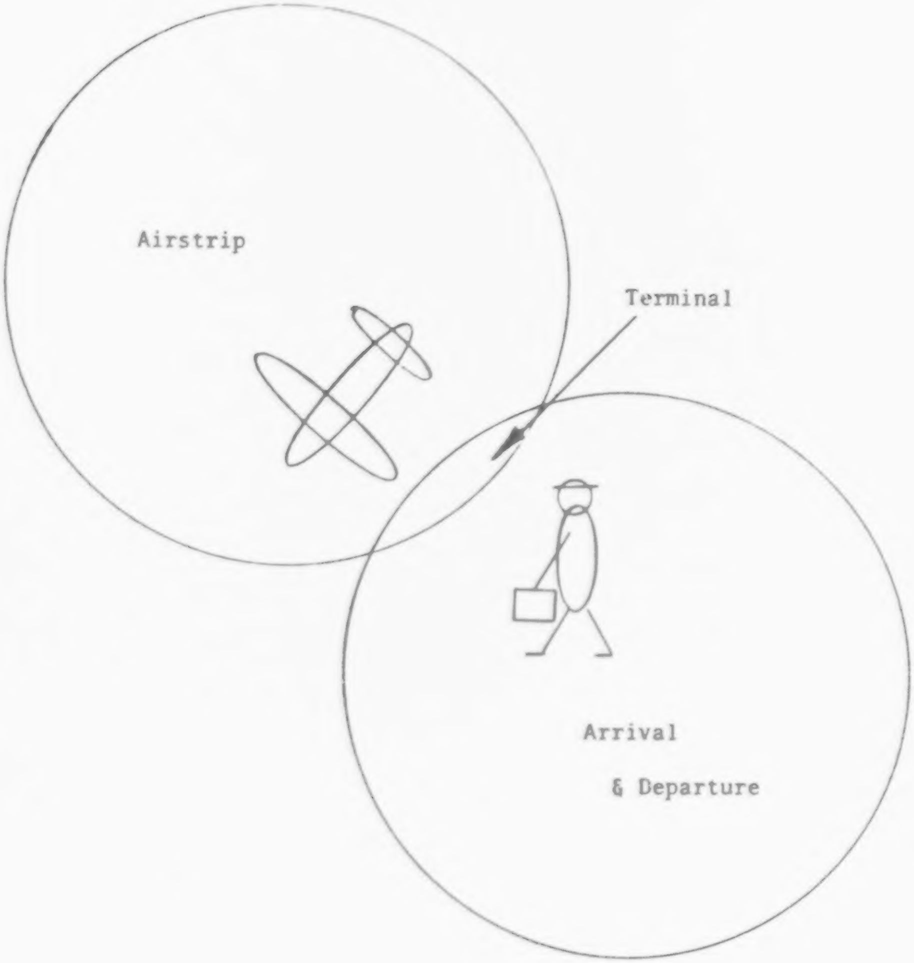
ANOTHER FORM OF BUBBLE DIAGRAM



1	Entrance
2	Meeting Room
3	Lobby & Circulation
4	Children's Room
5	Public Services Desk
6	Browsing
7	Audio Visual
8	Audio Visual Workroom
9	Card Catalog and Indexes
10	Adult Collections
11	Reference Services
12	Staff Workroom
13	Staff Lounge
14	Conference Room

FIGURE 7

BASIC FUNCTIONAL RELATIONSHIPS OF A HYPOTHETICAL AIRPORT


Airstrip
Terminal
Arrival
& Departure

functional relationships must now anticipate arrival and departure of passengers and cargo by a variety of transportation modes, not always compatible. Larger terminals have found this requires separation of in-coming traffic (arrivals) from out-going traffic (departures).

On the airliner's side of the terminal, gates and loading facilities must range from those handling small prop planes with a handful of passengers to 747's with their enormous capacities reflected in boarding lounges where hundreds of passengers must wait. In between lie all of the facilities we have come to expect in today's terminal.

Some of this is demonstrated in Figure 8 where the overlapped area shown originally in Figure 7, has now become a full bubble and represents the terminal, albeit still in extremely simplified form. Vehicular traffic is arriving in the Arc A, while airplanes arrive and depart in Arc C. Departing passengers enter the terminal, go to the ticket counter for boarding passes and to check in luggage. (Ignore, for the moment, the curb-side baggage handler.) At this point, traffic in our over-simplified diagram is broken into two routes: one for the passenger, the second for luggage. The passenger proceeds to the boarding lounge and through it to the plane while the luggage goes its own route to the cargo bay of the craft - hopefully the same plane.

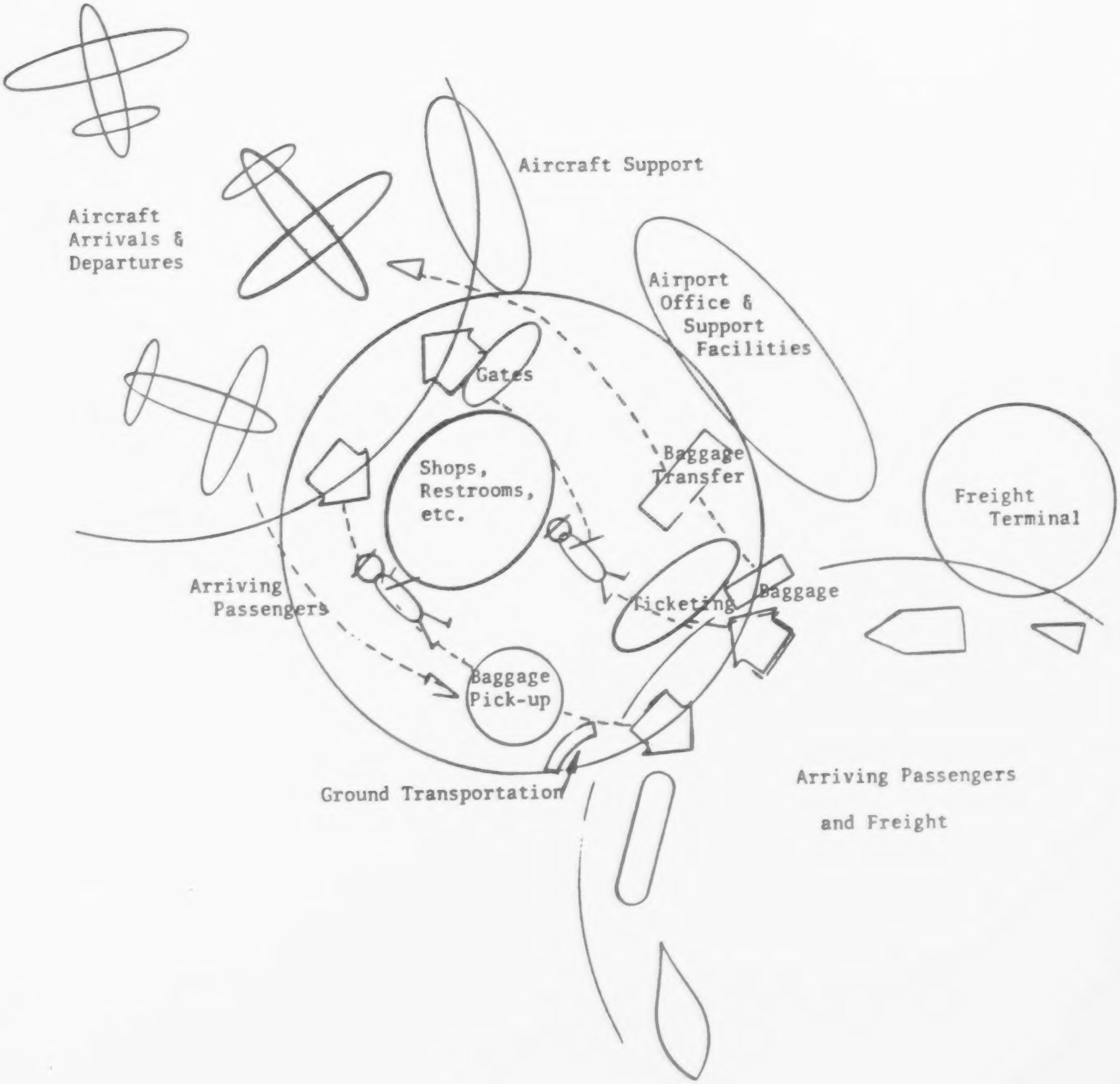
Meanwhile, the terminal must also meet the requirements of passengers who have just arrived on their flight. Some must be able to proceed to the baggage claim area, find ground transportation or meet people waiting for them. Others must find their way to another gate to await transfer to a different aircraft which may be operating in another terminal by another airline. Both the arriving and departing passengers may wish to avail themselves of amenities such as restaurants, gift shops, rest rooms, and other facilities - the list grows and grows.

Not considered in this brief scenario are all of the other functions which the terminal must also accommodate such as offices and work areas for airport employees, airline crews, cargo handling, aircraft refueling and maintenance, in-flight food service, and baggage handling, to construct only a partial list. As fragmentary as this is, it should be clear that designing a well-functioning airport terminal is dependent upon a clear understanding of all these innumerable relationships.

I trust this momentary diversionary exercise has illustrated in a non-library context how functions and traffic in a facility can be conceptualized and then illustrated in a functional relationship diagram. Each of the elements we have discussed,

FIGURE 8

COMPLEX RELATIONSHIPS OF A HYPOTHETICAL CONTEMPORARY AIRPORT


Aircraft Support
Aircraft Arrivals & Departures
Airport Office & Support Facilities
Gates
Shops, Restrooms, etc.
Baggage Transfer
Freight Terminal
Arriving Passengers
Ticketing
Baggage
Baggage Pick-up
Ground Transportation
Arriving Passengers and Freight

along with more that have gone unmentioned, constitute functions which can be conceived as a long series of interrelated problems. The solutions to each of these will affect the others. Because the variety of problems to be solved is so numerous and the range of possible solutions so great, airport terminals like libraries differ radically in form and ability to operate efficiently.

Just for fun, try to imagine the functional relationship diagrams that might have guided the architect who designed an airport terminal you use frequently. Based on your experience in that terminal, do you think those relationships were clearly stated in the program? This may well be the reason that you find Airport A easy to use while Airport B is always a nightmare; through one you move confidently and quickly while getting lost or frustrated trying to use the other.

Let's return now to the development of functional relationship diagrams for the library building program. For our own work, I find it is usually easier to go from the general diagram to the more specific and intricate functions. As shown in Figure 9, the initial diagram may be as simple as a larger circle which represents the total library, with an arc on one side indicating parking, while another, small arc, shows staff parking and delivery. Arrows show the relationship of the traffic between the parking lot and the library's entrance indicated by a smaller circle. Similarly, the delivery area appears as an oval connected to Delivery and Staff Parking by an arrow.

This could be elaborated upon to indicate relationships of vehicular and pedestrian traffic, area for bus loading, passenger drop-off zone, drive-up book return, and so on. In any case, the purpose is to make an initial statement of relationships of the library building to this site or outside surroundings. The fact that two points of entry into the building are shown - each with discrete functions - should reinforce the narrative text in eliminating a multiple entry concept popular among some architects.

Usually the sequence of functional relationship diagrams will follow a normal progression as the programmer proceeds from area to area through the building. To avoid fragmentation, it is helpful to introduce a somewhat generalized bubble diagram such as Figure 10, which provides an overview of major elements and their relationships.

The next figure could logically show the relationships of the entry to lobby space and to Circulation as indicated in Figure 11. Restrooms and other amenities may appear here as well as an indication of traffic flow shown by arrows. A more detailed

FIGURE 9

RELATIONSHIPS OF BUILDING FUNCTIONS TO SITE

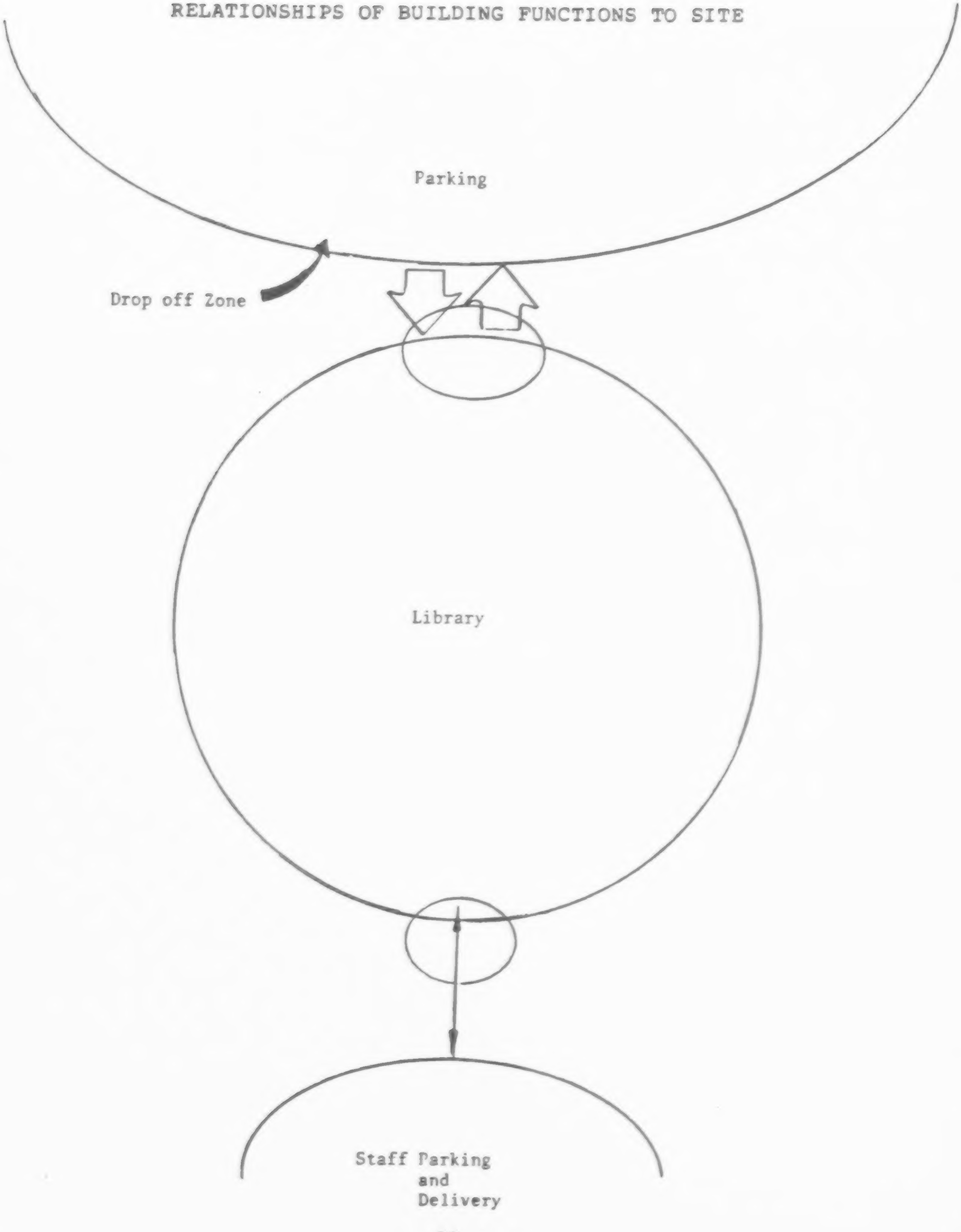
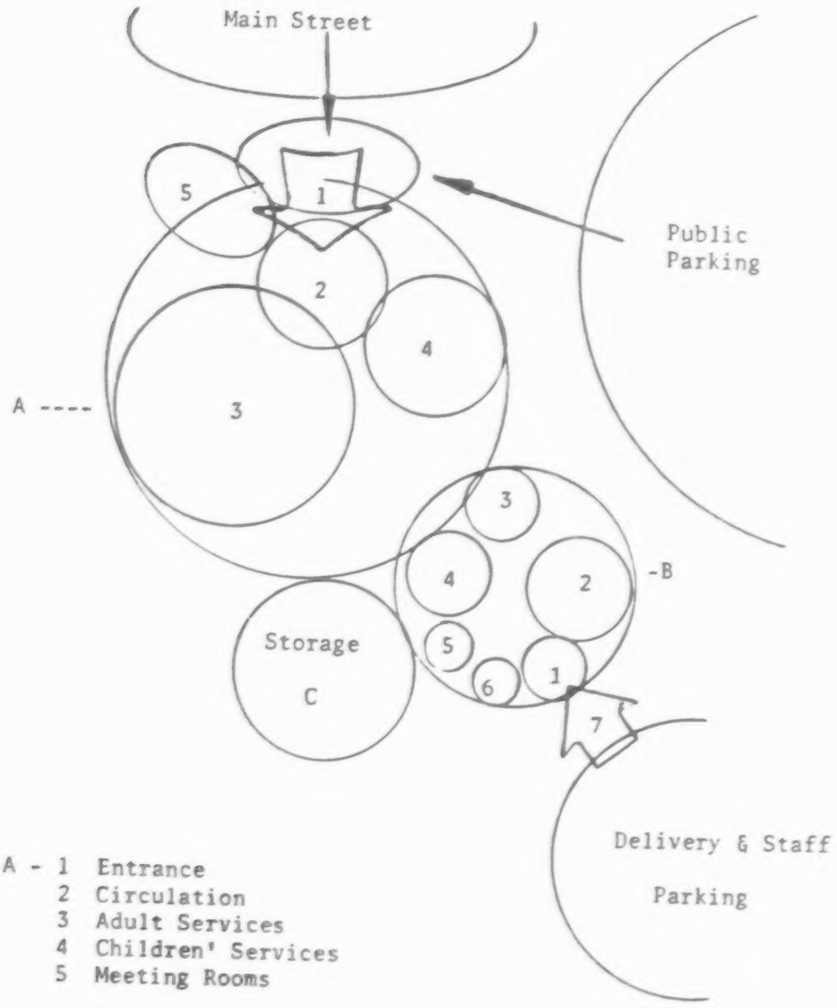

Parking
Drop off Zone
Library
Staff Parking and Delivery

FIGURE 10

OVERVIEW OF MAJOR LIBRARY ELEMENTS

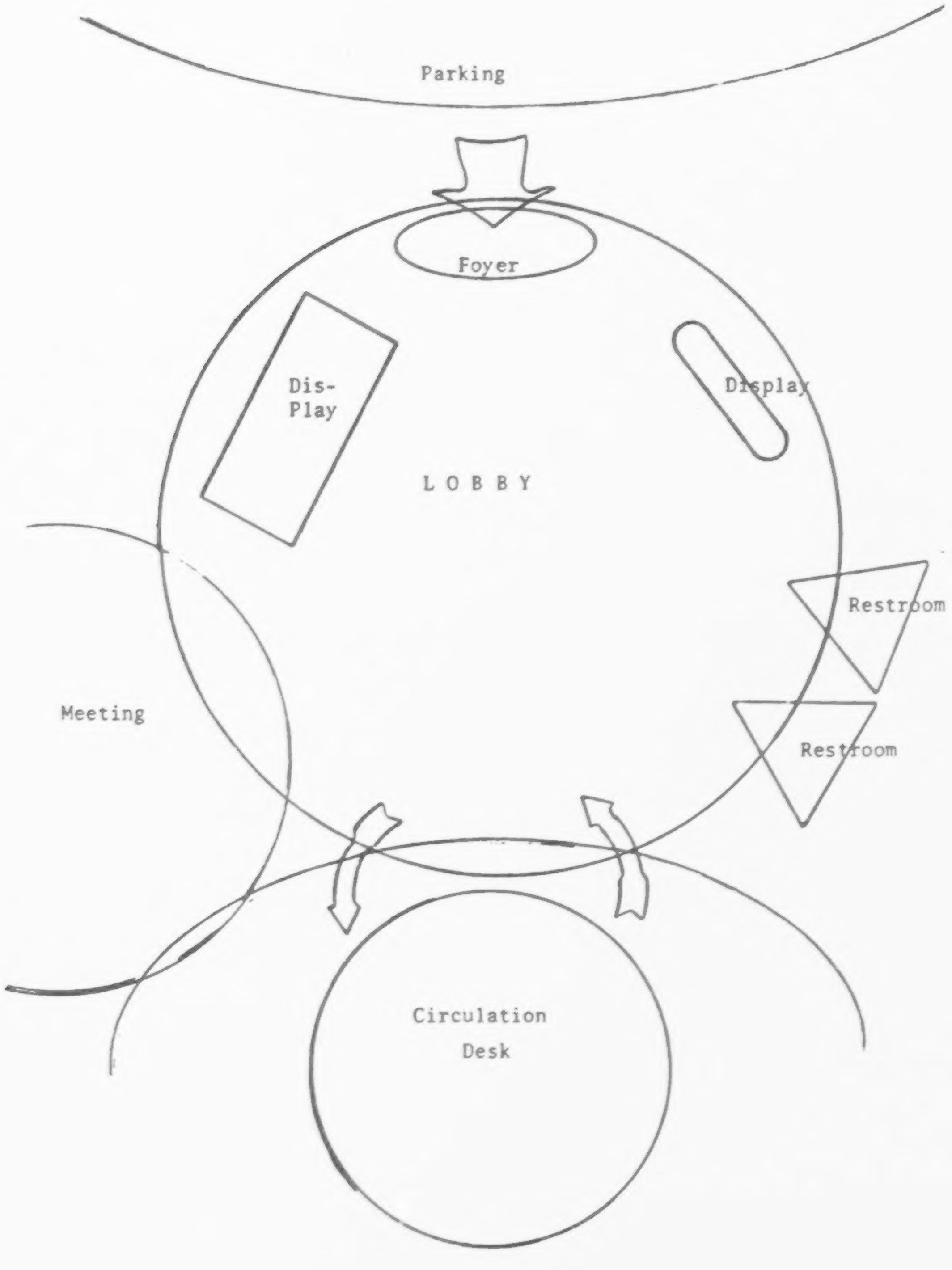

Main Street
5
1
Public
Parking
2
4
A ----
3
3
4
2
-B
Storage
C
5
6
1
7
Delivery & Staff
Parking

A - 1 Entrance
2 Circulation
3 Adult Services
4 Children' Services
5 Meeting Rooms

B - 1 Delivery
2 Technical Services
3 Administrative Services
4 Public Services - Staff
5 Staff Lunch Room
6 Custodians
7 Entry from Delivery & Staff Parking

FIGURE 11

RELATIONSHIP OF ENTRY LOBBY TO CIRCULATION


Parking
Foyer
Dis-
Play
Display
LOBBY
Meeting
Restroom
Restroom
Circulation
Desk

bubble diagram may follow, Figure 12, to demonstrate the major functions of the Circulation Desk, indicating their sequence and certain internal relationships.

From this point, the size and complexity of the library will begin to exert itself as you answer the recurring question: "What should come next?" Often times there are several functions, for instance, which must be accessed from a pivitol point such as the Circulation Desk. In this example, as shown in Figure 13, these may include a children's area, browsing area, reference area and a media area. (Obviously, the list will vary from one library to the next.) Showing the architect that all of these require access from the Circulation Desk establishes their general relationships and probable traffic flow.

Since there is not time to develop very many of these functional relationship diagrams, let's look at Figure 14 for a Reference Services Area. Can you detect the creative processes involved? Assume that the large circle represents the entire reference function, then, perhaps the first question is to show how this function relates to other major functions. Let's presume, for example, that we want direct access from the circulation desk area. This we show by making the oval representing Circulation actually overlap the Reference Services circle at the point of entry. Sometimes it is useful to add an arrow here for focusing attention on this critical spot. What other relationships could be explained? Well, for one, in libraries without separate reference catalogs, it is usually desirable to locate reference services adjacent to the card catalog - or bank of ROM readers, terminals or whatever represents the catalog in that library. This requirement is shown here as an oval which overlaps the larger reference service area and, incidentally, is also adjacent to both Browsing and Adult Services. Note here that if the oval representing the card catalog were entirely within the Reference bubble, it would tell the architect that the catalog should be located totally within the area.

What next? Perhaps you want the reference Department to make greater utilization of the general non-fiction collection. If so, we indicate that by overlapping the two functions. Use of an arc, by the way, indicates that Non Fiction is a large area. You may want to add a note that the portion of the non fiction collection to be located nearest the Reference is to contain a certain part of the collection - say the 600's - because of a frequency of use. Again, an arrow may be helpful to call attention to this relationship.

Next, consider the internal functional relationships to be observed in the Reference Department. Ask yourself: when a person comes into the Reference Department, what should be most

FIGURE 12

RELATIONSHIPS AT THE CIRCULATION DESK

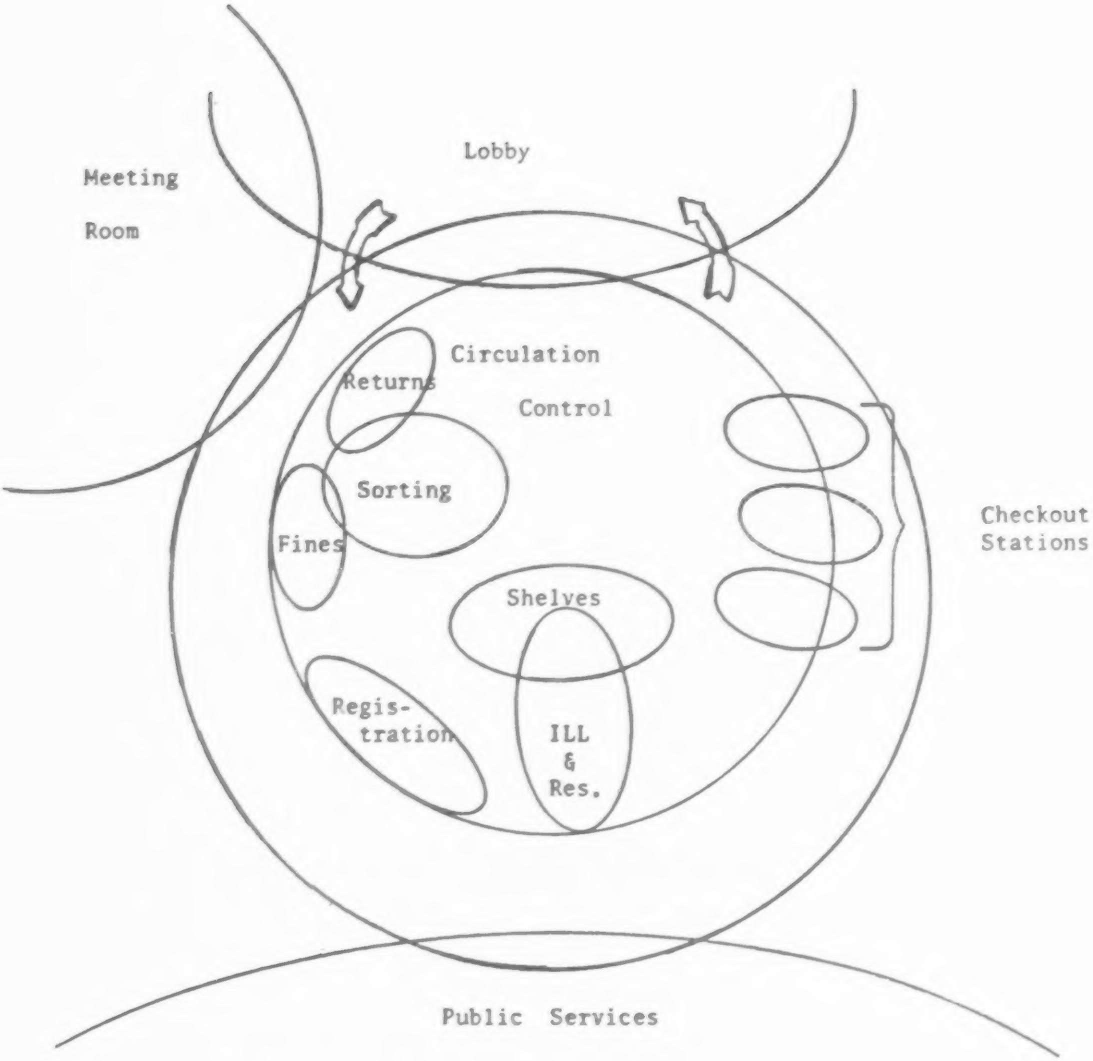

Lobby
Meeting
Room
Circulation
Control
Returns
Sorting
Fines
Checkout
Stations
Shelves
Regis-
tration
ILL
&
Res.
Public Services

FIGURE 13

RELATIONSHIPS OF THE CIRCULATION DESK TO OTHER AREAS

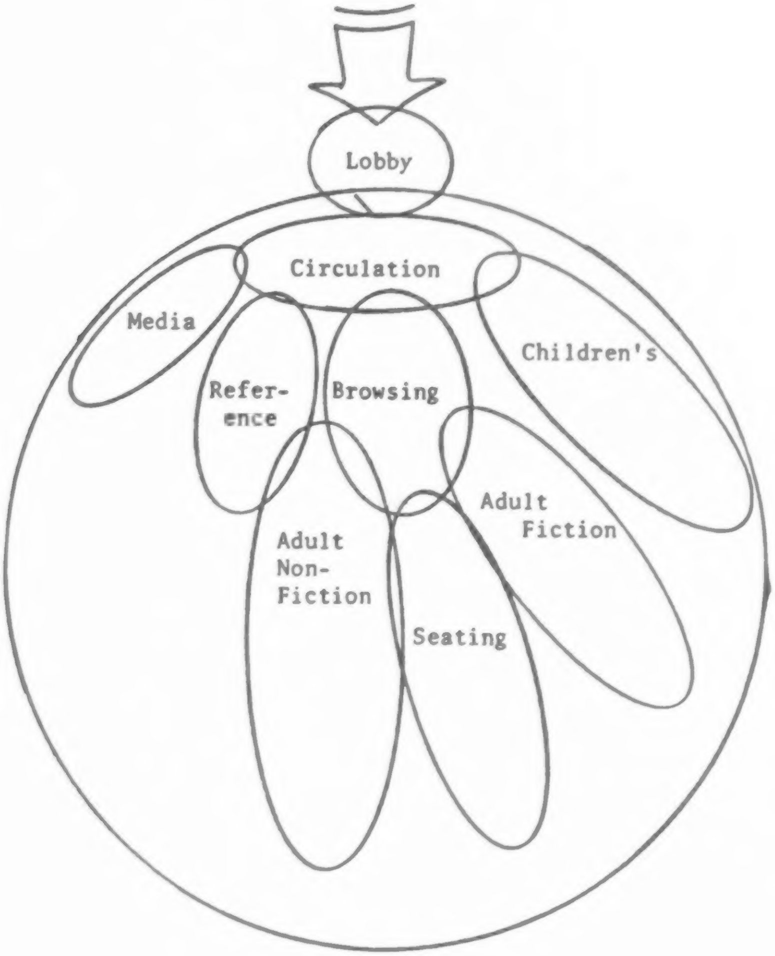
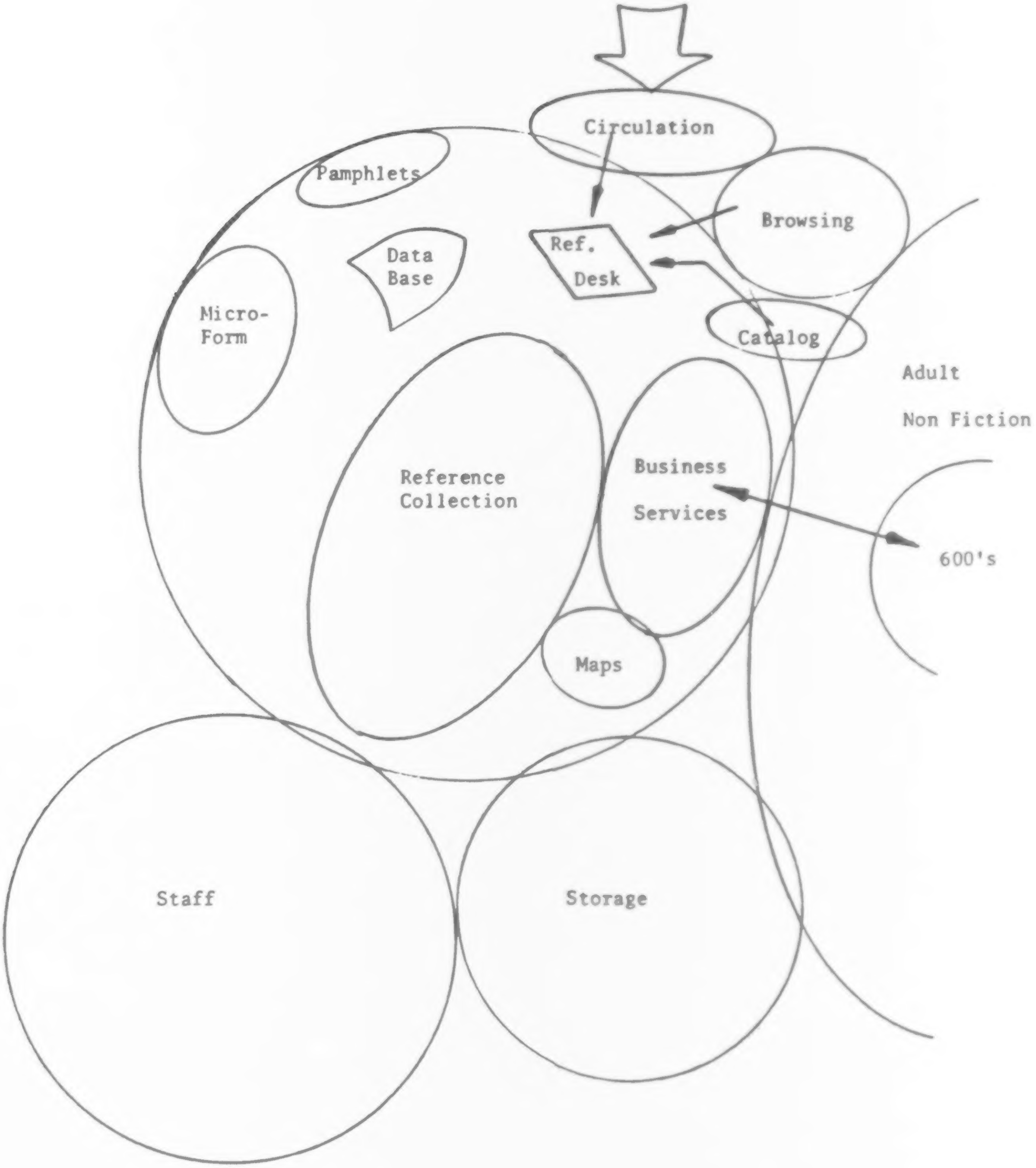

Lobby
Circulation
Media
Refer-
ence
Browsing
Children's
Adult
Fiction
Adult
Non-
Fiction
Seating

FIGURE 14

FUNCTIONAL RELATIONSHIPS IN THE REFERENCE AREA


Circulation
Pamphlets
Browsing
Data Base
Ref. Desk
Micro-Form
Catalog
Adult
Non Fiction
Reference Collection
Business Services
600's
Maps
Staff
Storage

visible and convenient? The response may be, the Reference Services Desk. If so, a symbol is placed near the entrance to show that function. At the same time, any other items such as a small ready-reference collection or reference data base terminal that may be closely related to the functions of this desk may be noted. (Items of equipment such as telephones, chairs, files and so forth will be listed in the program - not here.)

Perhaps it is now time to describe how seating and the reference collection relate to the total space - since these are the two largest functions. Both must be visible and accessible to the public. Likewise, the staff must have access to the collection and be able to supervise the seating area. Given the problem of supervising reading areas hidden by shelving, this means that the bubble representing seating will be between the staff desk and the reference collections. In a more sophisticated bubble diagram you may even want to indicate that seating, for instance, is actually divided between chairs at tables and study carrels. This can be done by using two properly related figures completely contained within the larger circle representing all of the seating. If you would prefer a seating arrangement in which some of the seating is interspersed with the collections, simply show several suitably labeled figures in the desired relationship to the collections.

Other relationships can now be shown. For instance, index tables, automated data bases and their terminals, microform files and reader/printer equipment, pamphlet files, map files and financial services - anything that is expected to be housed in the reference services area. Each of these represents a function and poses questions of relationships to other items or functions within the reference services area. These must be carefully related to staff and public access and use.

Usually consideration of these functions entails significant dialog with staff on how the best relationships of these functions can be achieved. Is the reference staff apt to travel more frequently to the reference collection shelves? pamphlet files? microform area? printed indexes? card catalog? How will backfiles be retrieved, and by whom? What portions of the reference collections will be used most frequently by the public with staff assistance? Which are apt to be used with the minimum direction from staff? Which collections are most likely to require direct staff assistance in their use? How can functions be related to provide the most logical public access while reducing noise and distraction?

As noted earlier, consideration of these relationships will almost invariably trigger serious discussions and impact collection growth, user patterns and other predictions. This is all a part of the tremendous decision-making process which the building program and the creation of functional relationship diagrams requires. How well the future building will function, whether your library will work like a dream or a nightmare, depends largely on the resolution of these matters. Each decision impacts the functional relationships.

We have come to expect near-miracles in library planning from our architect colleagues. But, don't expect them to answer questions such as the following: How much importance will be attached to the reference pamphlet file? Will these files grow to occupy several times the original space and create additional public and staff traffic? What about reference periodicals and their backfiles? How will the availability of more shelf space affect policies concerned with periodical backfiles and microform? Will staff spend more or less time instructing users in use of microform readers and reader/printers? If periodical and/or other backfiles are to be maintained some place other than in the reference services area, how frequently is retrieval apt to take place and who will do this? Will the number of periodical indexes be substantially increased requiring more index tables and greater traffic - more potential noise? Will the library be acquiring automated reference data bases? If so, how many terminals? How will this service be handled? Where? By whom? Hundreds of similar questions must be raised and addressed for each function, then reflected in the bubble diagrams. The architect does not pretend to answer questions such as these.

Almost inevitably, programming of any public area will require consideration of related staff areas. A major tool for clarity here is a staff organization chart which anticipates staffing requirements and changes in organizational patterns. Will there be new positions? New library activities or functions? Are there existing services which may be deleted or combined? Who will report to whom? Given the size of the staff and the proposed library building and the complexity of services to be offered, how can the arrangement of functions, including staff offices and workrooms and ancillary spaces best relate to maximize staff productivity. Should staff responsible for a given function be located adjacent to that function? Or, is staff efficiency better served by combining workspaces into larger workrooms shared by more staff?

After these questions have been answered, the decision can be shown on the appropriate bubble diagrams as a simple bubble telling the architect whether work space for staff when not on public desk duty shall be included as part of the service area or whether it is to be elsewhere in some other configuration.

What has been touched on all too briefly here for a mythical Reference Services Department in a hypothetical library, must be repeated for each major function in the library. In some instances, large departments may have to be further subdivided to show more complicated relationships within portions of the area.

Functional relationship diagrams do not, of course, stand alone. Rather, they form an integral part of the whole building program. They are supported by, as well as help interpret, the building program narrative and the quantitative descriptions of space needs.

Finally, I will warn you before you begin that the preparation of these diagrams is not quite as simple a task as it may seem. Sometimes a solution comes only after many attempts have been made to create something which will function properly. Often one or more elements which appear simple at the outset, prove to be complex and difficult to analyze. Like a great mosaic, one is constantly faced with the necessity of finally fitting all of the pieces into a meaningful whole.

Begin with a variety of templates, plenty of paper, and a good stock of erasers. This is a task of discovery, analysis, innovation, and enlightenment which will precipitate consideration of untold alternatives as you make quantities of decisions - many of them hard ones. But, I promise that you will never know your library better! Above all, remember that it is imperative to use your imagination - dream - it's your finest opportunity.

The words engraved on the wall of the Horizons building at EPCOT in Florida which houses mankind's greatest concepts of the future come to mind as a guideline and promise: "If you can dream it, you can do it!" Functional relationship diagrams are the first evidence of your dreams for a better library - may they all be wonderful, exciting, and fulfilling - and may there be narry a nightmare among them!

VI. NARRATIVE DESCRIPTION OF AREAS

Some building programs we have seen consist mainly of space requirements and lists of things which must be included in the facility design. While certainly better than nothing, such programs fail to take advantage of this one-time opportunity of describing in brief narrative form each library area. Library areas are much more than spaces that are filled with things arranged in a particular order. To perform its functions effectively, each area must possess certain qualities which might be called the internal environment.

The purpose of the narrative description of areas is to describe, to the best of the writer's ability, how each area should work and feel to the staff and to the user. A browsing area, for instance, has characteristics which are quite different from those of the reference area. In some respects this is the most difficult part of the building program to write since it requires a fairly clear conceptualization of spaces, functions and interior qualities, plus the ability to convey this in writing. Yet, it is so very important. Without such descriptive language, the design professionals are deprived of information which can be so helpful to them. Here is the opportunity to state how you want others to perceive each area. Don't miss it!

One word of warning: confine your descriptions to how areas will be used and how you want people to see and feel about spaces; don't insist on the use of particular architectural or interior design devices to create them. Let your design professionals employ their creativity and mastery of design techniques, knowledge of materials, etc. to translate your concepts into reality. As the planning proceeds through the various stages of design, you will have ample opportunity to decide how well your conceptual descriptions are being met.

VII. TECHNICAL REQUIREMENTS

Technical requirements represent still another broad range of subjects which must be covered by the building program menu. These represent all of the general and special requirements which are not directly related to space requirements and functional relationships. Many have to do with the interior environment or general conditions and provisions. Often they are grouped together at the beginning or end of the program with due reference made from related subjects. Technical requirements cover a diverse field from security and life-safety, to lighting, floor loading, acoustics, communications, electrical requirements, graphics and signage, display facilities and fire protection. By and large, technical requirements are written in laymen's terms, unless the program is prepared by a specialist knowledgeable in the various subjects. This is too large a subject to discuss in detail at this juncture. Suffice it to say that the wise librarian will take advantage of this section of the building program to include information and requirements which provide ample guidelines to the design professionals. Do not assume that your concept of good lighting or desirable noise levels are necessarily known or shared by the architect, for instance. Likewise, a well-defined statement about the need for adequate electrical outlets, cabling for automated equipment and video is much preferred to assuming that these will all come about through some form of magic.

In this section you may also want to address special subjects or conditions that may pertain to your project. Site utilization, vehicular traffic, community identification, adjacency to certain other structures, etc., may all deserve some comment, especially if unusual conditions prevail. Such information is particularly valuable if the architect has not been identified before the program is created and his or her views on such matters are therefore unknown.

VIII. PROGRAM FORMAT

In preparing your program, remember it will be used as a reference tool throughout the building project. To enhance the long-term usefulness of the program, information should be presented in a logical sequence using ample headings and sub-heads. A loose-leaf format is recommended for simplifying revision. The addition of an extensive table of contents or a detailed subject index will save enormous amounts of time, especially when the document is in use as a checklist during plan review.

You may wish to add a brief, preferably annotated bibliography directing the architect to the sources you found most helpful. Appendices may be used for data which substantiates the text but would interrupt the flow of the work if inserted in the body of the chapter, such as lengthy tallies of collections, long lists of furniture and seating, etc.

Once the building program has been completed, it should be officially adopted by the library's governing body. Such acceptance is the first step in getting the building program incorporated by reference as an integral part of the architect's contract. Acceptance also means that the governing officials have had an opportunity to read the program, raise any questions they may have on the basis of the program as well as space requirements. The building program carries much greater weight throughout the building project if it is an official document.

So that it will come as no surprise, perhaps it should be emphasized that the building program is a document subject to change. For instance, during the period of architectural design, the program is apt to be changed as concepts meet actual conditions. New insights will occur, new conditions will arise and new possibilities will present themselves which will result in program modification. Therefore, even though adopted as an official source book, the building program must be accepted as the starting point rather than as the final word on all subjects.

IX. CONCLUSION

The completed building program will be an impressive document, not just for its size, but even more because of all the decision making it represents. All the more reason why it is important to take the time and make the effort necessary to create a building program for your library project which reflects the services to be provided, the atmosphere you wish the library to reflect, and the user community you will be serving. With such a comprehensive and well written building program to guide the design professionals, you will be well on your way to achieving a successful building project.

ESTIMATING LIBRARY BUILDING PROJECT COSTS AT AN EARLY STAGE

By David Sabsay

I have been asked to provide some useful guidelines for estimating total library building project costs at an early stage: when only the size of the building may have been established; when there may be a building program, but no architectural studies; or when there may be schematic drawings and outline specifications but no final cost estimates.

As an aid in demonstrating the development of a building project budget I will refer to the sample budget below (Figure 15). This is a purely imaginary budget. By following this outline I can best indicate the various elements of cost and suggest how each can be estimated.

Some elements of the project may already have been achieved. A site, for example, may be owned by the agency or already purchased. A site survey may have been made, possibly in connection with the purchase.

Other elements of the project may be allocated to funds other than the capital project fund with which the board or director or even the architect are concerned. For example, the city or county public works department may absorb some site development costs, utility connection fees, etc. Even so, good management practice dictates that the manager be aware of total costs.

Furthermore, in grant programs with matching fund requirements, many if not all items paid out of local funds, no matter which pocket, may be submitted as part of the local share.

SITE ACQUISITION

1. Purchase Price. Of all building project costs the price of a site is the most variable, not only from city to city, but within a given city or area. Sources for determining the probable cost of a parcel or parcels include the following:

    a. City or County Assessors. In addition to (and as a means toward) establishing an assessed value of all property for tax purposes, these offices collect data on current property sales. The assessed valuation of the parcels in question and recent sales of comparable parcels are both helpful in estimating probable cost.

b. City or County Building Departments. In connection with issuance of building permits these offices frequently have information on property values. Some departments employ right-of-way agents to acquire property needed for street improvements, etc. These individuals are usually well acquainted with property values.

c. Local realtors. Obvious sources, but to be approached with caution. A public agency's interest in a given parcel or area may serve to fuel speculation or otherwise inflate values.

d. Appraisals. Ultimately an appraisal is necessary, whether the property be purchased outright, acquired by eminent domain or even received as a gift, where a tax credit would be taken by the donor (and a local contribution claimed by the agency). A professional appraisal does not guarantee the purchase price, but does serve as a solid basis for any subsequent negotiations.

The sample budget shows a 30,000 square foot parcel at $10 per square foot.

2. Legal and other fees. In addition to the purchase price there can be numerous costs incidental to acquiring a site. Such costs can include any or all of the following:

a. Appraisal fee;

b. Cost of negotiations;

c. Condemnation proceedings if required;

d. Title search, title insurance and title transfer;

e. Environmental impact report if required, and any related research;

f. Relocation costs for existing residents or businesses, required under some federal programs.

The sample budget allocation of $10,000 represents a typical mix; it would not be adequate if all of the above items were required.

FIGURE 15
SAMPLE LIBRARY BUILDING PROJECT BUDGET

[Assume 10,000 square foot building]

Figures shown are illustrative only, and do not represent actual costs.

A.	SITE ACQUISITION		
1.	Purchase Price	$ 300,000	
2.	Legal and Other Fees	10,000	
3.	SUBTOTAL		$ 310,000
B.	CONSTRUCTION CONTRACT(S)		
4.	Site Development	75,000	
5.	Building Contract	1,000,000	
6.	Built-in Equipment	15,000	
7.	SUBTOTAL		1,090,000
C.	FEES		
8.	Architects and Consultants	98,100	
9.	Site Survey	2,400	
10.	Soil Tests	4,500	
11.	Inspection	12,000	
12.	SUBTOTAL		117,000
D.	FURNITURE AND EQUIPMENT		163,500
E.	OTHER COSTS		10,000
F.	CONTINGENCY		41,500
	TOTAL ESTIMATED PROJECT COST		$1,732,000

CONSTRUCTION CONTRACT(S)

4. Site Development. While normally included in the general construction contract, the cost of site development deserves separate consideration. Area for area, some sites require considerably more work than others. There may be major elevations to be leveled, or depressions to be filled. Unstable soil may have to be replaced with compacted fill. There may be drainage problems requiring more than normal alleviation measures. (Geologic problems with the site may also result in extra costs for foundation work, which would be reflected in the building contract.)

If there are existing structures the cost of demolition must be considered. This will depend upon the nature as well as the size of the structures to be razed.

Installation of sidewalks, curbs and gutters, and street widening or improvement, if required, are costs which may be charged to the project, or absorbed in public works budgets.

One must consider the availability of utilities: electricity, gas, water, sewer lines, telephone lines, cable. If not on site, how far must they be brought and at what cost? Are there connection fees? Such costs and fees are frequently absorbed by city utility or public works budgets.

The site development figure in the sample budget represents a typical cost for a project of this size. It would not cover significant demolition or grading work.

5. Building contract. Before working drawings and detailed specifications are available, building construction costs must be estimated on a comparative square foot basis. The $100 per square foot used in the sample is indicative of the "neighborhood" of construction costs for public buildings in California at this time, as distinguished from $50 on the one hand, or $200 on the other. Costs vary with the type of construction, including materials and complexity of design. They vary from locality to locality, depending upon industry. They vary from season to season, depending again upon the state of the local construction industry, and the amount of construction taking place. Allowing for seasonal variations, and barring recessions in the industry, construction costs increase inexorably each year.

Sources to use for construction cost estimates are the following:

a. Architects. The project architects, once retained, should have primary responsibility for estimating construction cost, once the size and type of building have been determined. If a project architect has not yet been retained, it is conceivable that other local architects could provide such assistance as a public service. These professionals have their own prior experience and a variety of other sources upon which to draw, including those listed below.

b. Professional estimators. These individuals and firms are able to analyze working drawings and specifications for material and labor costs. It is frequently advisable to utilize their services before actually going out to bid. Many architects do so, either as part of their contract or as an extra service. While seldom consulted at an earlier stage, it is possible to do so.

c. Construction indices. Construction cost indices are available, and typically utilized by architects and estimators to arrive at their estimates. There is at least one California firm, which has offices in both the North and South, which provides such data. It is also available in the periodical Engineering News Report. Construction indices typically provide two kinds of data: 1) current costs for each type of material and related labor; 2) composite continuing indices spanning a period of years. The first would be difficult for any but an architect or estimator to use even after working drawings and specifications have been completed. The composite continuing costs indices, however, much like the Consumer Price Index, can readily be applied to update earlier known costs. If a building of comparable type and size (another library or other public building, for example) was constructed in the same community some years earlier, the composite continuing index can be used to adjust the square foot cost from that time to the present.

d. Building contractors. Local general contractors, particularly if they have worked with public or commercial as opposed to just residential buildings, usually have a pretty good feel for current costs. Many maintain detailed records of their previous job costs.

All contractors do estimating; some employ persons who do only that. (One should be aware that giving a contractor access to detailed plans and specifications could provide an unfair advantage in bidding.)

6. Built-in Equipment. I break this cost out mainly because, like site development, it can vary considerably from project to project, depending in this case upon local decisions on what to include in the construction contract and what to purchase and install separately. It is good policy to include in the general contract those items which are to be fixed in place and require exacting conformance with walls, floors, ducts, etc. This will eliminate the possibility of the owner becoming involved in controversies if installation problems occur.

Most if not all cabinet work should be included in the general contract. This includes storage spaces such as cupboards and drawers, wash basin counters, and any fixed display cases. Service desks which are basically counters fixed in place should also be included as a matter of course. The sample budget allocation of $15,000 on top of $1,000,000 general contract represents these kinds of items in a typical library.

Library shelving is frequently included in the general contract. Where this is done the material and labor costs will be greatly in excess of the amount shown here in the sample budget, and would have to be transferred from Item D., furniture and Equipment.

7. Total Construction Contract(s). It is worth pausing to consider the total construction cost represented by items (4), (5) and (6) above. This total is most frequently and validly used to compare two or more projects on a cost per square foot basis, omitting such variables as site acquisition costs, design fees, and furniture and equipment purchases. Even so, it is difficult to avoid comparing the proverbial apples and oranges.

Using the assumptions of the sample budget, the construction cost per square foot illustrated here is $109 ($1,090,000 / 10,000 square feet).

If, however, the site required the demolition of substantial structures, or major grading or drainage work, such that the site development costs are $100,000 more than the nominal amount shown, the construction cost would be $119 per square foot.

If, in addition, a shelving subcontract of, say $40,000 were included, the square foot "construction cost" would climb to $123 per square foot.

This range of figures for the square foot construction cost of the same building illustrates the fallacy of comparing costs without precise knowledge of the elements and conditions involved in each. Such precise information is unlikely to be available through the usual survey methods.

8. Architects and consultants. There are no longer, as there once were, generally accepted fee schedules for architects and other design professionals. Architectural fees may range from 6-10% of the construction cost of a project. They may be negotiated at a fixed amount, although any such amount can be translated into a percentage for comparative purposes. Where two or more firms are associated in a project there may be a separate fee for each. In such cases the owner must evaluate the total services provided. Is there simply a division of work, or does the addition of a second or third firm add substantially to the nature and depth of the professional services available?

As part of their basic fees, architectural firms normally choose interior materials including colors and finishes. Some firms employ specialists in this field. The owner may choose to employ a separate individual or firm for this work. Where this is done, one should evaluate the basic architectural services contract in this light.

The required services of engineering consultants -- structural, electrical and mechanical -- are usually included in the basic architectural contract, since these individuals or firms are consultants to the architect not the owner. The architect, in other words, has the ultimate responsibility for these aspects of design and is compensated accordingly. However, extra fees may be required for using the services of specialists such as interior designers, landscape architects, lighting or acoustic engineers.

Selection of furniture is sometimes performed by the architect, sometimes by an interior designer, and sometimes by the owner without benefit of either. Where design professionals perform a substantial amount of work in this regard, even if the owner makes the final choices, such work should be recognized in setting the fee.

In a building as complex as a library another kind of professional consultant is frequently employed, the library building consultant. This individual or firm works with the owner's representatives, including the library administration and staff, to develop a needs assessment and a building program for use by the architect. This program may be general or specific. The more detailed it is, the more useful to the architect. This factor should be considered in evaluating the total fee structure.

The total of fees shown in the sample budget for architects and consultants represents 8% of the construction cost (item 7) for architectural services, and 1% for building consultant services.

9. Site Survey. In order for a building to be properly designed for a given site, the architect must be provided with a site survey, performed by a licensed surveyor or civil engineer. This survey should be sufficient to fix the boundaries of the site, including any rights-of-way which may exist, establish elevations, and show the location of available utilities.

A survey may well have been performed at the time the site was acquired, sufficient at least to establish the boundaries and satisfy title requirements. Provision of survey maps adequate to the architect's needs is the owner's responsibility.

10. Soil tests. Tests of the nature and stability of the soils are also essential for proper building design. So critical are these factors that, if there is any indication of serious deficiencies, soil tests should be taken before the site is acquired or committed to the project. Substantial additional costs can be incurred if extraordinary soil compaction or foundation construction are required. In extreme instances another site may become more economically feasible.

11. Inspection. A project inspector or clerk-of-the-works is essential for any major construction project. This individual checks on the contractor, in regard both to materials used and the methods of construction, beyond the nominal supervision which the architect provides. While necessarily directed by the architect, the inspector is usually employed by the owner. In any event there is a separate cost involved.

A part time inspector is adequate for smaller projects such as the one illustrated. Such a person would be needed on site at critical times, such as the pouring of concrete, where density, reinforcement, workmanship and even weather are major concerns.

FURNITURE AND EQUIPMENT

A new building does not necessarily mean all new furniture and equipment. If an existing library is being enlarged or replaced, decisions must be made as to what if any existing items of furniture and equipment are to be utilized. Unfortunately, the most expensive types of equipment, such as copiers, typewriters and computers, are those which wear out or become obsolete most rapidly. The most durable items, such as tables and chairs, are the least likely to conform to new design concepts.

The best means of estimating the cost of new furniture and equipment is on an item by item basis. Quantities and detailed specifications for each item will ultimately be required for purchasing. Manufacturers' price lists, with appropriate quantity and other discount considerations factored in, will provide close cost data.

At an early stage, however, one can estimate the total furniture and equipment budget as a percentage of the construction cost. This relationship makes good sense when one considers that the latter represents current material and labor costs (although ones which fluctuate more than do general consumer goods) and the size of the building to be furnished. There is also a logical relationship between the quality of the structure and the quality of its furnishings.

In the present writer's experience, the cost of furniture and fixtures, including library shelving, assuming very little salvaged from earlier buildings, runs from 12% to 15% of the construction cost. I have used 15% in the illustration (15% x $1,090,000 = $163,500).

OTHER COSTS

This catch-all category is intended to cover anticipated items not included in any of the above categories. These can vary in nature and amount from the cost of advertising for construction bids to the cost of moving into the completed structure. Any administrative costs chargeable to the project, whether from the library or other departmental budgets, would fall here. The total obviously depends upon a host of individual circumstances.

CONTINGENCY

The amount set aside for unanticipated expenses depends upon the stage of planning, the confidence one has in the various elements and the later availability of funds if not established at this time in the project budget.

The amount for contingencies should be a factor of all costs not absolutely known. Some planners use a graduated approach: 5%, say, of the first $500,000 of budget estimates, and 2% of the balance. The sample budget uses 3% of all costs exclusive of site acquisition costs.

COSTS NOT INCLUDED IN SAMPLE BUDGET

Architectural enrichment. No specific allowance is made for works of art, such as murals or sculptures, to enhance the quality of the building. Many governments have established policies that a given percent of the construction cost of all public buildings be set aside for architectural enrichment. (If, in the sample budget above, only part of the 3% contingency item is actually required for other purposes, the balance might be utilized for this purpose.)

Debt retirement. The cost of servicing any debt incurred to finance all or part of the project (interest payments or bond redemptions) is not included in the foregoing discussion. Obviously this can be a substantial sum over a period of years.

FINANCING CALIFORNIA PUBLIC LIBRARY BUILDINGS, 1985

By Cy Silver

This paper outlines the current major financing methods that can be used for constructing public libraries or other public buildings in California. These methods reflect the existence of both Proposition 13's limit on ad valorem real property tax, and Proposition 4's limit on total local expenditure.

The methods include legal structures that can be created to undertake construction projects as well as sources of funds for those projects. Frequently a mix of various legal structures and fund sources is needed to bring a library facility into being. Further details on these methods are available on request from Cy Silver, Title II Coordinator, California State Library.

I. GENERAL OBLIGATION BONDS

For all practical purposes, general obligation bonds secured by ad valorem taxes have vanished since the passage of Proposition 13 in 1978. However, some jurisdictions may still have unissued bonding capability that was authorized prior to 1978. The bonds so authorized may be marketable.

II. MELLO-ROOS COMMUNITY FACILITIES ACT OF 1982

Mello-Roos (Government Code Sections 53311-53365.7) can be used to finance buildings by any jurisdiction authorized to provide library services. It allows creation of a special district, such as a Joint Exercise of Powers agency, to serve as a financing shell for public construction.

Funding for Mello-Roos construction financing requires 2/3 voter approval of a "special tax." In conformance with Proposition 13, such special taxes on real property may not be levied ad valorem, but may be levied on e.g. square footage or number of parcels.

Since a Mello-Roos district is a new special district, it has its own new Proposition 4 expenditure ceiling. The Proposition 4 ceiling of the district's sponsoring city or county is not threatened.

III. LEASE-PURCHASE ("BUILD TO SUIT")

Although technically there is no limit on the size of the project, the lease-purchase of property or major equipment (that is, lease or installment sale with option to purchase) is usually employed for smaller projects of up to $500,000. The jurisdiction will directly place the project with the private lessor of the property (frequently the builder); the lessor in turn gets financing from e.g., a bank. No voter approval is needed.

The "purchase" part must remain an option until exercised, since under the California constitution municipal income cannot be obligated for more than one year at a time without 2/3 voter approval. Voter approval is not needed for lease-purchase financing.

The lease itself may be negotiated at favorable rates, because the property, even though privately owned, is exempt from property taxes as long as it is used for the library. The interest portion of payments on the lease or installment sale can be structured to be exempt from federal and state income taxes.

IV. CERTIFICATES OF PARTICIPATION

Certificates of Participation (COP) expand the traditional lease-purchase arrangement by increasing the pool of investors. It is in effect a tax-exempt real estate investment trust for larger projects.

To use COP's, the municipality selects (or creates) a lessor, such as a non-profit corporation or a Joint Exercise of Powers agency. The lessor appoints a trustee (e.g., a bank or insurance company), and assigns to the trustee all rights to payments from the lessee (i.e., from the municipality). The trustee places the Certificates (that is, participation units of e.g. $5,000 each) with an underwriter. The underwriter then markets the Certificates.

A variant is the Pooled Certificate of Publication, in which several jurisdictions (usually smaller ones) join together to provide collective financing for several individual local projects.

The security for Certificates of Participation is the municipality's appropriation, not the property. According to Security Pacific Bank's Capital Markets Group, typical costs of issuance of COP's are such that projects should total at least $750,000; smaller ones could consider traditional lease-purchase (III. above).

V. SALE-LEASEBACK

The sale-leaseback option is made possible by the depreciation provisions in current federal tax law. It is used for multi-million dollar projects. In a sale-leaseback, the jurisdiction sells buildings it owns to a non-profit entity, and then leases them back from the buyer. The funds derived from the sale must be used in a three-year period.

In other words, a jurisdiction owning usable public buildings, but wishing to construct additional ones, could sell what it owns, use the proceeds to construct new ones, and retain use of the ones sold through the lease provisions of the sale. The sale-leaseback terms will also protect the jurisdiction's ability to repurchase the property at the end of the lease period, which may be the useful life of the sold property (anywhere from 20/25 years to as much as 65 years).

Sale-leaseback is sometimes also known as Tax Exempt Leveraged Lease (TELL) financing. (See Randy Hamilton, "The World Turned Upside Down: The Contemporary Revolution in State and Local Government Capital Financing," in Public Administration Review, January/February 1983, pp;. 22-31.)

The complexities of sale-leaseback are beyond a three-paragraph summary. Competent underwriting counsel should be consulted.

VI. DONATIONS

Library buildings can be financed by major donations from philanthropists or corporate foundations. A professional fund raiser may be able to organize a campaign that would work in California. Two large California library systems now employ full-time fund raisers.

VII. LOCAL REVENUE SOURCES

In addition to special taxes which require an overt 2/3 voter approval, mentioned under Mello-Roos above, local city councils (and sometimes boards of supervisors) do have the ability to include utility taxes, license taxes, bed taxes or property transfer taxes (i.e., documentary stamp tax). Such municipal actions require public hearing and notice. Overt taxpayer action is required to prevent their enactment; failure to object results in the tax being imposed.

VIII. DEVELOPER FEES

Under the Subdivision Map Act (Quimby Act), local developers may be required to pay fees for needed municipal capital projects in the areas they are developing. (The developer of course passes such fees on to the purchaser of the subdivided property.) Several public library buildings have been financed through such fees.

IX. AIR RIGHTS OR COMMERCIAL SPACE

Sale of air rights or setback easements associated with a library project in built-up downtown areas may provide valuable incentives for private developers. In busy foot traffic areas, sale or lease of commercial space on one or more floors of a library construction project may be possible, with the library occupying other floors.

X. COMMUNITY DEVELOPMENT BLOCK GRANTS

This major federal program has been used for a variety of local public construction projects, including libraries. Included are Entitlement Grants (Catalog of Federal Domestic Assistance 14.21B) and Small Cities Program (CFDA 14.219). Although the Small Cities CDBG program specifically excludes central libraries as an authorized use, it may be that branch libraries are eligible.

Almost all jurisdictions have officials familiar with CDBG. The regional office of Housing and Urban Development can also provide technical assistance.

XI. HISTORIC PRESERVATION GRANTS-IN-AID

This federal program (CFDA 15.904) assists with plans and specifications for restoration of historic buildings. It may be that some of the planning work needed to provide modern library services in buildings that have intrinsic historic interest, can be facilitated with Historic Preservation funds. (Library planners should be extremely careful in evaluating the capability of an older building to meet modern service requirements.) Further information can be provided by the State Historic Preservation Office.

XII. LIBRARY SERVICES AND CONSTRUCTION ACT

Title II of this federal program (CFDA 84.154) is specifically for constructing local public libraries. In addition to new buildings, "allowable construction includes additions to existing buildings, conversion to library use of buildings originally designed for other purposes, and remodeling for handicapped access, energy conservation, or use of modern technologies. It does not include general renovation and repair."

Applicants must provide local cash expenditure at least 50% of project costs. Costs may include construction itself, site acquisition, architectural services, and furniture and built-in equipment.

LSCA is administered in each state by its State Library.

XIII. SPECIAL ASSESSMENT DISTRICTS

According to many experts, recent court decisions and statutes make it possible for those charter and general law jurisdictions (including cities, counties, cities and counties, and special library districts) to use special assessment financing to acquire and construct library facilities.

Requirements include conformance with an adopted general plan. Also, assessments must be based on reasonable benefit to the properties included. Since libraries have previously been considered as benefiting all segments of the population, not just property owners, a benefit assessment formula for libraries requires careful analysis.

Special assessments are not taxes, so there is no Proposition 13 consideration. Another feature is that the governing body involved usually can adopt them on its own motion. At the same time, the ability to proceed without voter approval should be exercised with extreme caution, so as not to abuse the opportunity.

XIV. LIBRARY CONSTRUCTION AND RENOVATION BOND ACT OF 1986 (SB 1220)

At press time SB 1220 was still in the legislature. If enacted, and then approved by the electorate, the act would make one hundred fifty million dollars ($150,000,000) available to build new public library facilities (including land and fixed equipment), or renovate or expand old ones. The state will provide 75% of the cost of approved projects, with a required 25% cash match by the local jurisdiction. The appraised value of an already-owned or donated library site may be included in the local match. The act is to be administered by the State Librarian.

XV. ENERGY CONSERVATION

Funds for energy audits and for remodeling for energy conservation are periodically available from the California Energy Commission. The funds are loans, to be repaid over time from the savings realized by energy remodeling.

XVI. METHODS NOT INCLUDED

Revenue bonds are not considered appropriate for libraries, since libraries are not supposed to be significant revenue producers. Similarly, pooled bond banks, typically based on revenue-producing municipal services, are also not included.

Tax increment financing per se is not included. It seems unlikely that a library by itself would generate sufficient increased property and sales tax income in a redevelopment area, to offset the cost of construction. However, libraries have been included among the public facilities constructed in a neighborhood redevelopment area.

QUESTIONS ABOUT LSCA TITLE II

By Cy Silver

Following are some of the most commonly asked questions about Library Services and Construction Act Title II, Public Library Construction.

1. Q: Who can apply for Title II funds?

A: The actual applicant is the jurisdiction which will hold title to the building, and is legally capable of committing the funds for it. In some county or district libraries, the jurisdiction owning the building may be the community in which a branch library is located, rather than the county or district itself. In all other cases, it will be the county, city or special district. Only in the case of the dozen special district public libraries will the applicant be a Board of Trustees. A city library Board of Trustees is not an eligible applicant; only the City itself is.

The earlier Notice of Intent can be submitted either by the library director or an official of the owning jurisdiction, although both must sign it.

2. Q: Can donated land or labor be used as local match?

A: No. The act uses the term, "expenditure." U.S. Department of Education legal counsel has ruled that "expenditure" means actual cash changing hands, not in-kind donated services or materials. (Funds expended within 3 years prior to an LSCA Title II approval may be included in local match.)

3. Q: How involved does the state get in the design and construction of Title II projects?

A: State involvement will be for only those projects that are granted Title II funds.

Beginning in 1986, the State will be more involved in review of design documents than previously. Approvals will focus on satisfying the State Library that the building program addresses the service needs of the community, and that the facility's design both efficiently carries out the library functions called for in the building program and meets current standards for energy conservation, handicapped access, seismic safety, and similar architectural concerns.

Because the projects are local projects, developed and administered under local code, contracting and inspecting procedures, state approvals are focused on ensuring that all relevant problems have been addressed. The solutions to those questions are a local responsibility. Of course, if the grantee wishes, the state will be happy to suggest alternative solutions.

The State Library's critiques of local designs are provided by Office of State Architect staff and by contract with qualified library planners. The State role is as agent for the federal government, and is not at all like state involvement in school or hospital construction.

4. Q: Does the local match need to be on hand at the time of submitting the application?

A: No. We expect the applicant does in fact have the ability and has made the commitment to meet invoices and payrolls as they become due over the life of the design and construction of the project. Assuming the applicant does have the resource capability and commitment, the local responsibility is then one of cash flow management.

5. Q: When are the LSCA grant funds paid to the grantee?

A: Since the purpose of the program is to ensure that new facilities are actually provided, no payments are made until construction actually begins. For all but the smallest projects, 25% of the grant amount is paid at each 25%-of-construction milestone.

6. Q: Are general rehabilitation and repair eligible for Title II funding?

A: No. The Act specifically limits the use of funds to new construction (which means new buildings, additions, and conversion of buildings originally used for other purposes), and to remodeling only for energy conservation, handicapped access, and/or new technologies.

7. Q: Is the local clearinghouse to be notified?

A: No, A-95 is no longer in force. Local jurisdictions may have their own local clearinghouse requirements, but there is no state or federal requirement.

8. Q: Is shelving an allowable inclusion in a Title II grant?

A: Yes. Furniture, shelving, and built-in equipment may be included in project costs.

9. Q: What funding sources are eligible as match?

A: Any local or state source may be used. However, the only federal sources allowed under the Act and its requirements are Revenue Sharing or FHA. E.g., CDBG is not eligible for match purposes.

10. Q: Why is there a minimum allowable project size of $50,000 LSCA and local combined?

A: This is State Library administrative policy. The amount of local and state paperwork and oversight required, although modest, makes it too costly to allow smaller projects.

11. Q: Can the State Library award less than the amount of LSCA requested?

A: Yes, but only after confirming with the applicant that the project will not be harmed thereby. We always award all the funds available, to the dollar, and may need to adjust individual project approvals in order to arrive at the correct total. However, we do not in any way want to entice anyone into attempting a construction project that is inadequately designed or funded.

12. Q: How can an applicant be sure applications, etc. are filed by announced receipt deadlines?

A: That is a local responsibility. Applicants have used personal staff as couriers, or used commercial courier services.

Express Mail can be satisfactory if the delivery schedule is reviewed. Keep in mind that there is no one to accept delivery on weekends if the material's arrival in Sacramento results in attempted weekend delivery. With the Postal Service, undelivered material goes back to the Post Office, and there are subsequent delays that may jeopardize timely receipt of applications. Some courier services may present similar problems. Again, the responsibility for timely delivery is the applicant's.

13. Q: Are modular buildings eligible for construction with Title II funds?

A: Yes. Modular (or "portable") buildings are eligible, as long as they will be permanently affixed to the site. However, their method of construction has the following implications that must be considered by an applicant.

1. Design considerations indicate that the applicant should have its own architect, rather than accepting the manufacturer's building uncritically. Problem areas include:

a. deflection in the diaphragm (floor), commonly occurring because the ability of plywood to stand up to library book and people weight and movement is limited. Designs may require rigid steel frames and concrete slab floors.

b. mechanical systems on rooftops may require ducted supply and return.

c. conformance with State Building Code Titles 21 and 24 requirements.

d. the State may require review of shop drawings after submission of bids to the grantee, but before award of the contract and beginning of construction.

2. The need to ensure that the structure actually conforms to the specifications. Since it is built away from its site, the owner should consider employing an inspector to periodically visit the factory during construction, to provide the same kind of inspections that the local building department performs for a locally-constructed building. The architect may need to visit the factory after construction but before shipping, for a final review. (Education Code Section 39190 et seq., Factory-Built School Buildings, provides some guidance.)

14. Q: What suggestions can help applicants improve their chances of approval?

A: The following "tips" reflect State Library experience in reviewing Title II applications. Attention to them will make applications more competitive, and help applicants better understand how and why particular decisions are made.

1. The application should be complete. Although the application materials enumerate all required information and enclosures, and emphasize that applications must be complete, every year there are applicants who omit critical contents. The State Library has limited time to review applications, and makes no attempt to alert applicants to those omissions. Such missing information frequently makes it impossible to evaluate the proposed project. The result is that the application is denied.

2. The need for the proposed facility should be thoroughly documented. Frequently the reason for providing the facility is not apparent. The rationale for providing scarce funds is lacking, so they are not awarded.

3. Local funding should be secure. Applications are weakened if the applicant is unable to commit to meeting project costs from known funding sources. Many applicants do have that control over their proposed funding, and do not depend on the vagaries of e.g., prospective voter approval or fundraising campaigns. All things being equal, the State Librarian will choose the project that is sure to be built, rather than one which still has local financing hurdles to surmount.

4. The site should provide for at least twenty years growth. Twenty years is the statutory period of federal interest. If the initial construction does not itself provide for twenty years' growth, the building program and the design should provide for expansion to meet that growth need. As a matter of prudence, however, since library buildings typically are in use for 50 years or more, local planners should plan for that. Either the site can accommodate a facility that will satisfactorily serve the longer period of likely occupancy, or the jurisdiction's long-range facilities plan provides alternative sites to accommodate the post-20 years growth.

5. The available LSCA funds are limited, and the State Librarian ultimately chooses from among many worthy competing applicants. Failure to receive LSCA funds is usually no reflection on the applicant's competence or the local need. Only a proportion of applications can be approved. Applicants should certainly prepare their applications as thoroughly as possible, following all instructions, but at the same time must realize there are no guarantees. Being a "high priority" applicant will not help if local need is not convincingly presented, if the application is not complete, or if any of the other requirements are not met. Even then, competing applicants may even better meet the current priorities.

15. Q: How can I learn more about Title II application requirements?

A: For further information, call Cy Silver, Title II Coordinator, at (916) 322-0360.

CONVERTING PROGRAM TO COSTS AND COSTS TO FUNDING ACADEMIC LIBRARIES

By Nancy McAdams

I. CONVERTING NET SQUARE FEET TO GROSS SQUARE FEET OF BUILDING FOR THE BASIS FOR CONSTRUCTION COST

Once the building planners have determined the total net square feet required to meet the library's space needs, using state space standards or other methods of quantifying needs, it is necessary to covert the net usable area to gross area of building to be constructed. The gross area includes space allocated to building structure, mechanical equipment and chases, stairs, elevators, foyers, corridors, and vestibules, restrooms, janitorial spaces, and other areas not usable for library purposes.

II. DETERMINING THE TOTAL PROJECT COST

The cost of constructing the building itself (the general construction cost) is the major portion of the total project cost, which includes costs associated with the construction, and costs associated with occupancy of the completed building. Costs which are integral to the planning and construction processes are site acquisition and preparation; demolition of existing structures on the site; site utilities; fees for architects, consultants, and construction inspectors; surveys, tests, inspections, permits, etc.; site paving and landscaping; furnishing; and air balance. Occupancy costs include move costs; equipment for owner's operations; communications systems installation; and signage. Both construction and occupancy costs are typically increased by escalation (inflation).

III. SOURCES OF CONSTRUCTION COST FIGURES

Estimates of construction cost or project cost can be determined by applying unit costs per square foot to the gross area figure, or by preparing detailed cost estimator's reports based on the architect's plans and specifications. Unit costs for "ballpark" estimates may be derived from the academic institution's experience figures for comparable buildings, from the architect's comparable project experience figures, from published construction cost indexes such as those in the Engineering News Record, or from annual estimating publications such as Means Construction Cost Data.

IV. COST ESTIMATING

Detailed costs estimates prepared by the architects or specialist estimating consultants should be made very early in the project, based on preliminary plans and outline specifications, to ensure that the project is being designed within the budget. More refined estimates should be made at subsequent stages of development of the project documents to provide the most accurate possible indication of the outcome of bidding.

Architects' or professional cost estimators' estimates are typically organized by the major construction elements of the building, following the same general order as the sections of the specifications (the Uniform Construction Index).

V. SOURCES OF FUNDING

Funds for the construction of academic library buildings for private institutions, and for some public institutions, are generally obtained through philanthropy, i.e., by some combination of designated gifts from individuals, foundation grants, or capital campaigns, or by the allocation of funds from an institutional building fund established by these means. Occasionally an institution may obtain a mortgage from a commercial bank, or may issue construction bonds, secured by the institution's future income. Publicly supported institutions may also obtain funding from direct appropriation from legislative bodies.

VI. CASH FLOW - WHEN THE PROJECT MONEY IS NEEDED

Regardless of the source of funds, all the money is not needed at once, or at the beginning of the project. In order to get started, the library administration may need to obtain planning money, for fees or salaries for assistance in determining the project requirements and initiating the requests for approval and funding. If the project proceeds to design, the next need is for money for architectural fees, and possibly site acquisition and preparation. The largest portion of the project funds are of course required for construction, paid out to the construction contractor in "progress payments" as the building materializes. Finally, the library will require money for equipment, move-in and startup of operations.

CONSTRUCTION COST ESTIMATING AND PROJECT CASH FLOW

By Bud Oringdulph

As was discussed, project cost analysis involves all aspects of program development - from initial feasibility to final determination of operational costs. Many of these costs are normal extensions of the library's on-going program, but several are unique to the development/construction process. The largest of these costs are the actual construction costs. How does one programmatically project construction cost? What do these costs contain? Are they consistent? Do they vary from one part of the country to another? Where are sources of information that would assist in early projections?

A. PUBLISHED CONSTRUCTION COST INDEXES/TRENDS

Of the many sources, two kinds of cost information is immediately available.

1. Indexes - "Means" systems is an annual publication of average construction costs based on 43 years of experience and an exhaustive research program.

2. McGraw-Hill's F.M. Dodge Report is a reporting of costs trends randomly assembled and published semi-annually.

These reporting methods may report a specific project noting its area and costs components or as in the Dodge Report note "group" costs in comparison to previous reporting periods i.e., reporting will be divided between non-residential and residential building and further divided between commercial and institutional. These analyses give the reviewer a general understanding of building costs - for the building type and location.

More specific costs may be obtained by consultation with specialists in costs (such as Lee Saylor, Inc. of Walnut Creek, California), or by discussions with "local" contractors, architects, or construction managers. Frequently, however, specific sources such as contractors or architects can only reference "their" personal experience or will reference the "Means" or "Indexes".

Let's clarify the responsibility for establishing costs. Assume that the library program has advanced beyond a probable program with a projected budget and is to a point where final programming and design have been initiated.

123

Normally at this point in design, those responsible to project estimated costs would be any of the following:

1. The Architect/Design Team

2. Owner's Cost Analyst

3. Construction Manager

4. Library Consultant (equipment only)

Less frequently:

1. Contractors

2. Owner Physical Facilities Department

Most importantly, the owner must determine early in the planning process who is responsible for total budget and cost information.

In summary, cost estimates are established:

1. Through construction trends (preliminary)
2. Through construction indexes (budget)
3. On historical basis
4. Through detailed cost estimates

In using these tools, remember that the various cost indexes we've described - and others like them - provide a general cost figure arrived at by compiling data representing a large number of projects as well as interviews with suppliers, subcontractors and contractors. In contrast, the detailed cost estimate is figured for a particular project and is based upon the estimated cost for materials, systems and other components including their quantity and quality.

B. CONVERTING NET TO GROSS SQUARE FEET

Another factor in establishing budget costs is determining the acceptable gross building area to net building area.

Dodge is again helpful in establishing a basis for these standards; i.e., the 1985 Dodge evaluation notes that the guide for libraries should be a ratio of 132% gross to net or 76% net to gross. These standards may vary depending on the type of library with consideration as to functions within and number of stories. For planning guidelines the Dodge standards are excellent.

C. LOCALITY ADJUSTMENTS

Locality adjustments is another important factor in cost analysis. For instance $1.00 of construction in New Haven, Connecticut will cost $1.16 in New York City and 78¢ in Norfolk, Virginia. Similarly, construction costs in San Francisco are higher than Walnut Creek, but lower than downtown Los Angeles. Also, standards will note that the average cost of public libraries is $7.50 less than university libraries. But once again, caution must be used in these considerations as building size, type of construction, and locality have impact on this variance.

It is important that current construction trends in each locality be verified if standards are to be used.

D. COST EVALUATIONS DURING DESIGN

Establishing budgets has been discussed, but what cost evaluation program should be undertaken on a typical project? The design process moves from the establishment of an idea to the development of a design, projecting that idea into three dimensions. It then carries the design into the development of construction documents that describe all components of a building and how they are connected.

It is a progressive process from a vague thought to detailed documents. Cost estimation must follow this same sequence from the establishment of a budget based on a program through more detailed cost analysis.

A suggested outline would be as follows:

Estimate 1 -	Budget based on standard and program. (Generally a unit cost or number of square feet x Y $ Sq. Ft.)
Estimate 2 -	When the building design is completed (schematic design) a more accurate unit cost based on more accurate areas may be assumed.
Estimate 3 -	When the design is finalized and all systems are determined, a "design development" estimate based on areas, materials, and components can be developed.

Estimate 4 - The third estimate should be updated during the development of construction documents as final construction systems and spaces are documented. (Note: This updating may occur several times during document phase depending on project size.)

There may be more or less estimating depending on the program size - if it is a phased project and if it is to be constructed in other than normal bidding circumstances.

The following are typical case analyses showing how estimates are organized from basic unit cost through final articulated cost projection. The earliest estimates assume unit costs, area, owner's costs, and contingencies based on experience and standards:

FIGURE 16
HOW COST ESTIMATES ARE ORGANIZED

Example: Unit Costs - Assumed cost per square foot of building, plus an owner's cost factor.

Assume... 10,000 gross sq. ft. x $80.00/sq. ft. (index cost) = $800,000 construction cost.

plus..... Equipment costs at 12% x construction cost.

plus..... 20% owner's costs (A/E fees, interest, survey, soils, testing, legal, etc.)

plus..... Escalation costs. Assume current escalation is 6% per year x 18 month construction = 9% (X.5) = 4.5% escalation.

thus.....	$ 800,000	Construction Costs
	96,000	Equipment Costs
	189,000	Owner Costs
	49,000	Escalation
	$1,134,000	Total Cost Estimate
	= $113.40	Sq. Ft. Total Cost

As more is known, the building is broken down into components:

FIGURE 17
COST ESTIMATING COMPONENTS

SEATTLE UNIVERSITY

January 9, 1985

ENGINEERING AND COMPUTER SCIENCE BUILDING
Cost Estimate Breakdown

Item	%	S.F. Cost	Total
Foundation	5	5.75	322,000
Building Enclosure	24	27.60	1,545,600
Interior Construction	16	18.40	1,030,400
Verticle Transp.	2	2.30	128,800
Lab Casework	3	3.45	193,200
Equipment	8	9.20	515,200
Mechanical	21	24.15	1,352,400
Electrical	9	10.35	579,600
Contractor OHD	8	9.20	515,200
Contractor Profit	4	4.60	257,600
TOTAL	100	115	6,440,000 (56,000 @ 115)

The above breakdown is current costs. No allowance was made for inflation.

These figures are then used as the basis for developing a full program cost as illustrated in Figure 18.

FIGURE 18
PROJECT COST SUMMARY

SEATTLE UNIVERSITY
January 9, 1985

Project Cost Summary

1. Engineering and Computer Science Building				
56,000 @ 115	=	6,440,000		
Inflation @ 7-1/2%		483,000		
		6,923,000		$ 6,923,000
2. Humanities Building				
45,100 @ 82	=	3,698,200		
Inflation @ 7-1/2%		277,365		
		3,975,565		3,975,565
3. Site Development				
90,000 S.F. @ 3	=	270,000		
Demolition		30,000		
Inflation @ 7-1/2%		22,500		
		322,500		322,500
SUBTOTAL				$11,221,065
Contingency 3%				336,632
Sales Tax 7.9%				886,465
TOTAL CONSTRUCTION				$12,444,162
4. Estimated Owners Direct Costs				
Surveys			10,000	
Soils			7,000	
A/E Fees (incl.reimbursables)			950,000	
Legal Costs			-----	
Building Permit & Plan Check				
English & Comp. Science			25,000	
Humanities			19,000	
Insurance			20,000	
Concrete & Spec. Test			8,000	
Concrete & Spec. Inspection			7,000	
Blueprint Costs			4,000	
Owners Project Representative			35,000	
Acoustical Consultant			7,500	
Landscape Consultant			12,500	
			1,105,000	1,105,000
				$13,549,162

The design development phase allows component estimation as this example of page 42 of building speciality items noted:

FIGURE 19
SAMPLE OF COMPONENT ESTIMATION

UNIVERSITY OF ALASKA - JUNEAU, ALASKA — Page 42
DESIGN DEVELOPMENT ESTIMATE — July 6, 1984

OPTION I - LEARNING RESOURCE CENTER
06 - INTERIOR CONSTRUCTION

063 - SPECIALTIES	QUANTITY	UNIT	ESTIMATED COST
Chalkboards, sliding	2	EA	$ 750
Bulletin Board	1	EA	500
N.C.R. Reference Desk overall 11 ft. 6 in. x 11 ft. 0 in. with one curved end, 42 in. high with shelves, files, access gates, etc. (32 LF)	1	EA	11,500
Reference services desk ditto overall 10 ft. 0 in. x 19 ft. 0 in. with two curved ends (46 LF)	1	EA	16,000
Circulation desk ditto overall 21 ft. 0 in. x 21 ft. 0 in. with 4 curved corners (72 LF)	1	EA	25,000
Media/Video dissemination desk ditto all curved (25 LF)	1	EA	9,500
Master control desk	26	LF	10,000
Periodical files 14 in. deep x 90 in. high	972	LF	175,000
Ditto 60 in. high	252	LF	31,000
Ditto 42 in. high	168	LF	17,000
TOTAL ESTIMATED COST:			Continued

Figures from tables and computations such as the foregoing are then accumulated and presented in summary forms as a part of the Design Development estimate of project cost. A sample is shown in Figure 20 which provides information on two options under consideration by the client including their separate and combined costs.

FIGURE 20
DESIGN DEVELOPMENT ESTIMATE

UNIVERSITY OF ALASKA - JUNEAU, ALASKA
DESIGN DEVELOPMENT ESTIMATE July 6, 1984

ELEMENT	OPTION I LRC	OPTION II VAC	OPTION I & II LRC & VAC
01 - Site Work	-------	--------	-------
02 - Subcontractors	801,150	194,610	995,760
03 - Superstructure	1,458,340	356,040	1,814,380
04 - Exterior Closure	628,190	257,900	886,090
05 - Roofing	363,400	95,940	459,340
06 - Interior Construction	1,448,720	431,450	1,880,170
07 - Conveying Systems	92,000	80,000	172,000
08 - Mechanical	1,347,170	637,160	1,984,330
09 - Electrical	838,350	270,640	1,108,990
10 - Equipment	24,540	118,370	142,910
11 - General Conditions and Profit	1,448,310	223,680	1,671,990
12 - Contingencies	1,365,520	367,500	1,733,020
Estimated Cost:	9,815,690	3,033,290	12,848,980
Budget Cost:			
Difference from Budget:			
Cost per SF:	166.01	160.30	164.90
Gross Floor Area:	59,128	18,794	77,922

During the final stages of preparing construction drawings and specifications, estimating becomes much more precise. The final estimates are arrived at by quantitative takeoff in which the price of each item is estimated.

FIGURE 21
QUANTITATIVE TAKEOFF COST ESTIMATE

Description	Quantity	Rate	Amount
Shower - curtain rods & curtain	2 no	70.00	140
- soap dish	2 no	20.00	40
- towel bar	2 no	35.00	70
- clothes hook	2 no	7.00	14
325. 8 person Dressing ($6,670.)			
4' Dressing Stations	8 no	530.00	4240
6' high storage cabinet	5 lf	100.00	500
Open closet bar with wooden shelf over (1' wide) gable ends and 1' high rack	14 lf	35.00	490
7' high cloth covered tackboard	24 lf	60.00	1440
326. Hall			
7' high shelving unit	6 lf	125.00	750
327. Actors' Assembly			
Upholstered bench	32 lf	75.00	2400
7' high cloth covered tackboard	38 lf	60.00	2200
328. Hall			
7' high mirror	6 lf	50.00	300
329./332. 2 Person Dressing ($3,870.)			
4' dressing station	4 no	530.00	2120
Mirror 2'x3'	2 no	75.00	150
7' high cloth covered tackboard	22 lf	60.00	1320
2' long closet bar including support rod	2 no	50.00	100
Soap dispenser	2 no	40.00	80
Paper towel dispenser	2 no	50.00	100
330./331. Toilets & Showers ($514.)			
Double toilet paper & shelf	2 no	50.00	100
Mirror 2'x3'	2 no	75.00	150
Shower - curtain rod & curtain	2 no	70.00	140
- soap dish	2 no	20.00	40
- towel bar	2 no	35.00	70
- clothes hook	2 no	7.00	14

The final cost estimate accummulates and summarizes all of this data. These sums indicate the amount of the item, its cost per square foot, and the total cost of a major component such as the structure, interior partitions, stairs and escalators, and interior finishes. Figure 22 shows a partial list of items that would be included in such a final summary. Note that the cost per square foot and total cost are covered to a percentage of the total cost. This permits the owner to know, for instance, that 6% of the total construction cost will be for interior partitions and doors while 8% will be spent on interior finishes including finishes, ceiling finishes and wall finishes.

FIGURE 22
FINAL COST ESTIMATE SUMMARY (Partial Example)

Element	Amount	Cost per SF		Total	%
Substructure	471,000				
Normal Foundations	171,000	1.24			
Basement Excavation and Backfill	263,000	1.91			
Special Foundations	37,000	0.27	3.41	471,000	3
Structure	1,759,000				
Lowest Floor Const.	77,000	0.56			
Upper Floor Const.	1,227,000	8.90			
Roof Construction	455,000	3.30	12.75	1,759,000	10
Exterior Cladding	2,936,000				
Roof Finish	430,000	3.12			
Walls below Ground Floor	185,000	1.34			
Walls above Ground Floor	1,161,000	8.42			
Windows	103,000	0.75			
Exterior Doors & Screens	913,000	6.62			
Projections	144,000	1.04	21.29	2,936,000	17
Interior Partitions and Doors	1,123,000				
Permanent Partitions and Doors	1,098,000	7.96			
Movable Partitions and Doors	0	0.00			
Glazed Partitions and Doors	25,000	0.18	8.14	1,123,000	6
Verticle Movement	908,000				
Stairs	498,000	3.61			
Elevators & Escalators	410,000	2.97	6.58	908,000	5
Interior Finishes	1,502,000				
Floor Finishes	331,000	2.40			
Ceiling Finishes	382,000	2.77			
Wall Finishes	789,000	5.72	10.89	1,502,000	8

By following such thorough processes, you have a better guarantee that the project will be constructed within the budgeted dollars. Nonetheless always be cautious that these are estimates only and are developed on averages not influenced by the fluctuations of the market place. Protect your program by being realistic on all costs and allow a contingency for protection in case bids exceed estimates.

E. CASH FLOW

A final item that will help plan the financial balancing of the program is project cash flow. When are dollars needed during the course of planning and construction? A simplified chart follows:

FIGURE 23
CASH FLOW

Each project is different depending on size, complexity, new, or remodel. But a guideline for new construction suggests the following:

100% of monies would equal all costs (less land cost).

Planning/Programming	.5%
Design	3.0%
Construction Documents	4.0%
Bidding	.5%
Construction/Equipment	92.0%

8% of the monies will be spent in the first 30% of expended time. 30% will be spent in the next 35% of time and the balance of 40% will be spent in the 35% balance.

More detailed projections can be made when the program and budget is established. (Remodeling projects will have a different guideline with more monies spent in the front of the project than noted above.)

And always remember that complete planning and construction costs must include early feasibility studies, programming, land costs, off site costs, owner costs (such as fund raising, administration, interest, A/E fees, etc.) furnishing/equipment costs, and occupancy costs (move-in, start-up).

Many projects face one surprise after another as new costs are discovered. Careful cost planning, with consideration of everything, is essential. If dollars are not adequately projected, the program is inevitably damaged, bitter feelings are developed, and what should have been an exciting and rewarding experience for all involved turns into a disappointment.

INTERIOR PLANNING FOR AN INTEGRATED WHOLE

By Marshall Brown

The purpose of interior planning is to produce a project in which the interiors are an integrated part of the building. This is in contrast to interior decoration which is basically cosmetic in nature. To illustrate how interior planning occurs and some of its results, we will look at two library projects we have been involved in: The Chula Vista Public Library and the Del E. Webb Memorial Library Addition at Loma Linda University Medical Center. In both projects we worked closely with the architect from almost the beginning of the project so that details of the interior spaces evolved along with the rest of the building. When construction documents were completed, every color, texture, material and stick of furniture to be used had been drawn and specified. This proved to be very advantageous from the owner's standpoint in bidding the construction work.

THE CHULA VISTA PUBLIC LIBRARY

The Chula Vista Public Library, located between San Diego and the border, now serves a city of more than 100,000 people. Planning for the library building began in the early 1970's and culminated with a grand Bicentennial opening in 1976. It is situated at the crossroads of two major thoroughfares for local traffic within the central business district and adjacent to the civic center. The site, an eight block area which was formerly occupied by a school, contains the library, substantial parking and a well landscaped park behind the library.

On the exterior, white walls and the red tile roof reflect the community's Spanish heritage and the Mission style of the neighboring civic center buildings. A winner in the ALA-AIA Library Building Award program, the project is praiseworthy whether considered as an interior, or as a piece of architecture.

The building program called for interior spaces which would be light in scale, with large, open flexible spaces. All the public areas were to be focused around the entry point at ground level. Staff offices, workrooms and storage could occur at another level. Vandal resistant and low maintenance finishes were preferred where possible.

The design also aimed to develop lighting and air conditioning systems for minimal energy consumption. High ceilings not only permitted the introduction of clerestory windows but also permitted use of high wattage mercury vapor lamps. The ventilation system uses exterior air - usually pleasant in this climate - to be filtered and circulated without heating or cooling for much of the time. To economically accommodate the large masses called for by the complex roof design, a steel frame structure was chosen.

The architectural plan relationships and space requirements were developed not only from the Library Consultant's feasibility and space analysis, but from the need to integrate structural and mechanical systems, and to accommodate changes expected but not possible to spell out - changes involving computerization of functions, for instance:

Called in early as interior designer and also as an interior planner, we fed back to the team the following input on programmatic goals: to greet people; to accustom them to library assistance; to provide easy access to their destination; to serve the visitor whether in a hurry or with hours to spend; to make spaces exciting and functional within the scope of the architectural concept; to provide the architect with data regarding lighting, finishes, cabinetry, and special effects at the construction stage.

Established early and prepared for the engineers, were the desk locations, utility/telephone requirements, broadcast and computer facilities and a determination made as to the need for counters and built-ins. Then the interior designer worked on determining exact staff requirements with them. And finally came the detailed color, finishing, and graphic information schedules, after which specs were ready for manufacturers.

Situated at the Southeast corner of the building, entry corridors permit access from two directions merging inside before entering the library proper. A decorative screen can be pulled across the single interior entrance to provide security while retaining access to the auditorium and conference rooms situated at the Southeast corner of the building. A lighted canopy was devised by the design team to guide people through the corridor and into the library (Figure 24). The auditorium with fixed seating for 150 (Figure 25) is located at the right.

Entering the library, the user passes the Circulation Desk which has been designed to encourage orderly queuing of crowds. Originally designed for another type of circulation system, the desk (Figure 26) has comfortably adapted to both a collection security system and a fully automated circulation system with all of its hardware requirements.

FIGURE 24

ENTRANCE TO THE CHULA VISTA PUBLIC LIBRARY

Photo Credit: Robert Ward & Associates

FIGURE 25

AUDITORIUM WITH FIXED SEATS FOR 150

Photo Credit: Robert Ward & Associates

FIGURE 26

CIRCULATION COUNTER LOOKING TOWARD "NEW BOOKS" AND "REFERENCE" AREAS

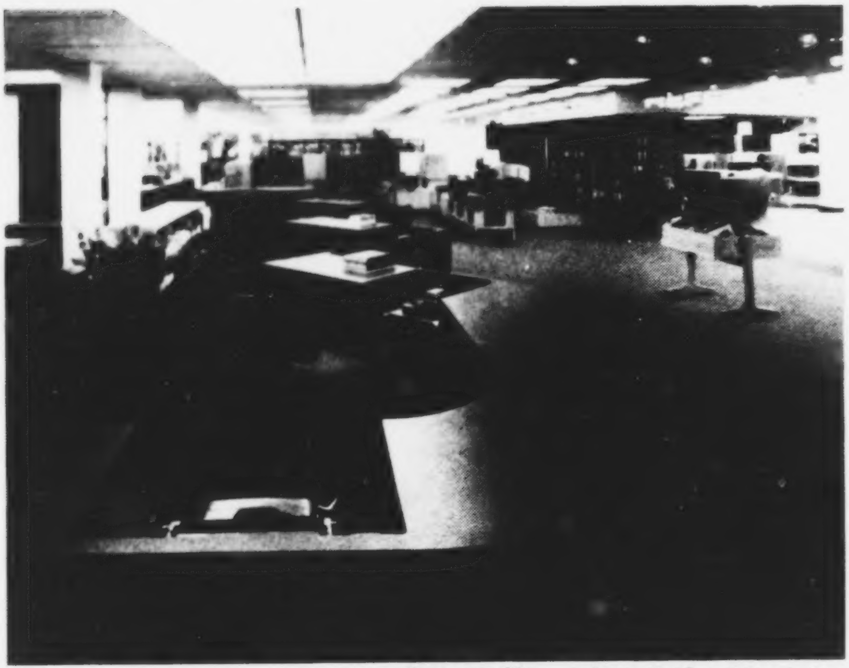


Photo Credit: Robert Ward & Associates

FIGURE 27

CHILDRENS' SERVICES DESK

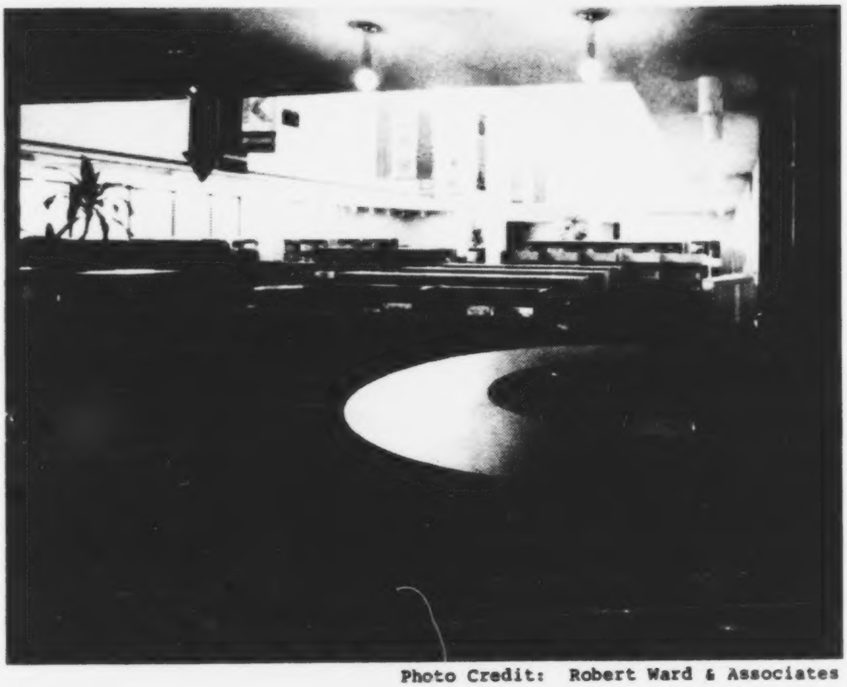


Photo Credit: Robert Ward & Associates

Past the Circulation Desk and immediately to the right is the large Childrens services area with its semi-circular staff desk and special furniture (Figures 27 and 28). Colorful banners hang from the high ceiling to help define space as well as to add color and graphics.

Turning the opposite direction from the Circulation Desk, the adult user can find comfortable lounge seating adjacent to shelving where mirrored letters advertise "New Books" (Figure 29.) A specially designed reference desk is on the opposite side (Figure 30). Index and reading tables were designed with trestle supports to create an open feeling and to reduce maintenance costs.

A circular reader's advisory desk is located near the entry to the adult reading area (Figure 31). Beyond, comfortable lounge seating is provided readers using the stack areas. At the end of this open area with the high, North-facing clerestory, is another reading area (Figure 32) arranged around a functioning fireplace. Paperback books are displayed on shelving we designed for this purpose north of the reading area. Not shown are a number of groupings of chair and table seating, carrels and other lounge chairs. All chair coverings are removable for easy cleaning and wood finishes can be maintained with little effort.

Counters, banners, ceiling design, and lighting are combined in a total composition whose clarity makes for easy orientation. This is exhilaration without confusion, with serenity achieved by total design. Even the plants look flourishing.

THE DEL E. WEBB MEMORIAL LIBRARY ADDITION

Loma Linda University has one of the largest medical schools in the Western United States, and the best known medical collection West of the Mississippi. The addition was designed to serve both the medical school and the Loma Linda University Medical Center. Built in 1953, the existing library had become totally inadequate. The rapid growth of health science literature had created extremely crowded conditions and temporary trailers were being used to house books.

The plans called for a major library addition to be built, along with a Visitor Center incorporating an exhibit area and a 320 seat auditorium. Two major donors were involved in the project, with the library addition on the two upper floors and basement level.

A simple square mass design was specified for the addition so as not to compete with the complex form of the existing library (Figure 33). The two are joined by a large glass enclosed lobby.

FIGURE 28

CHILDRENS' SERVICES READING AREA

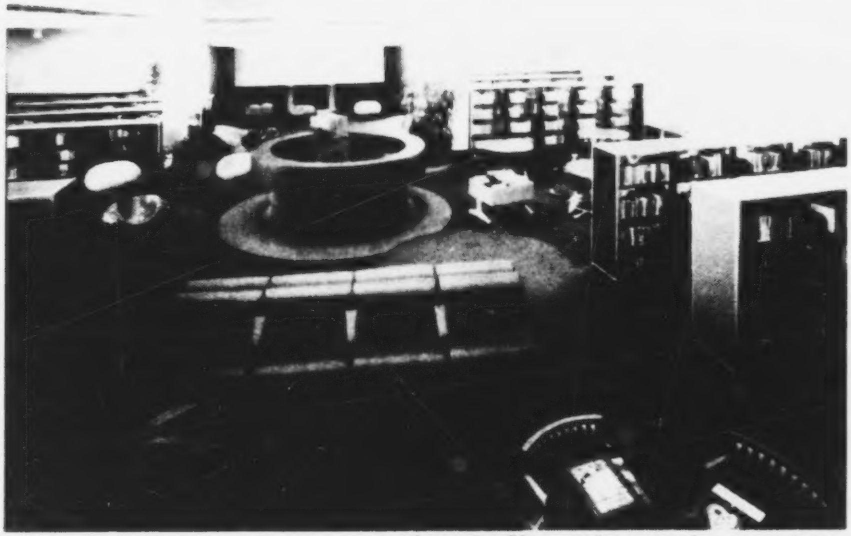


Photo Credit: Robert Ward & Associates

FIGURE 29

NEW BOOKS READING LOUNGE

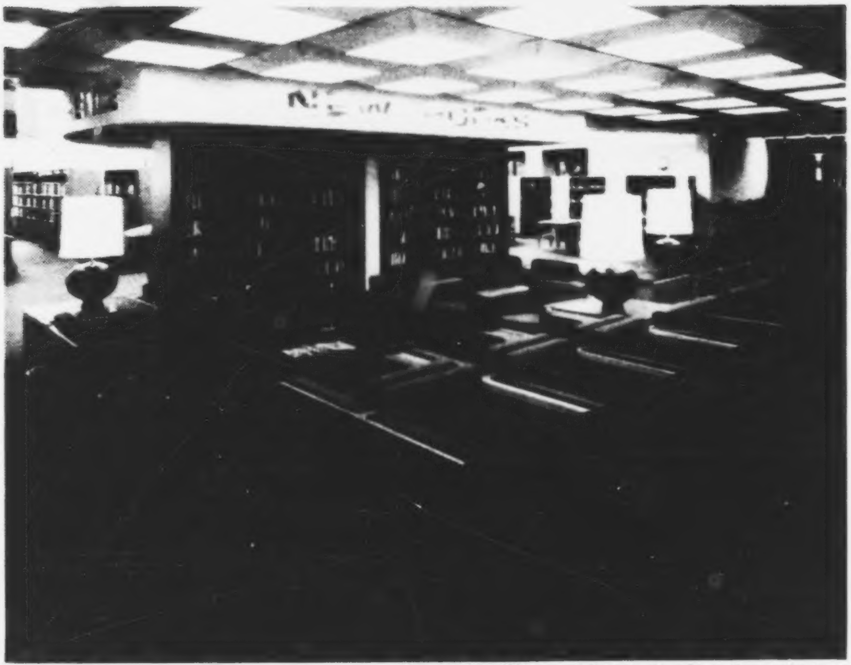


Photo Credit: Robert Ward & Associates

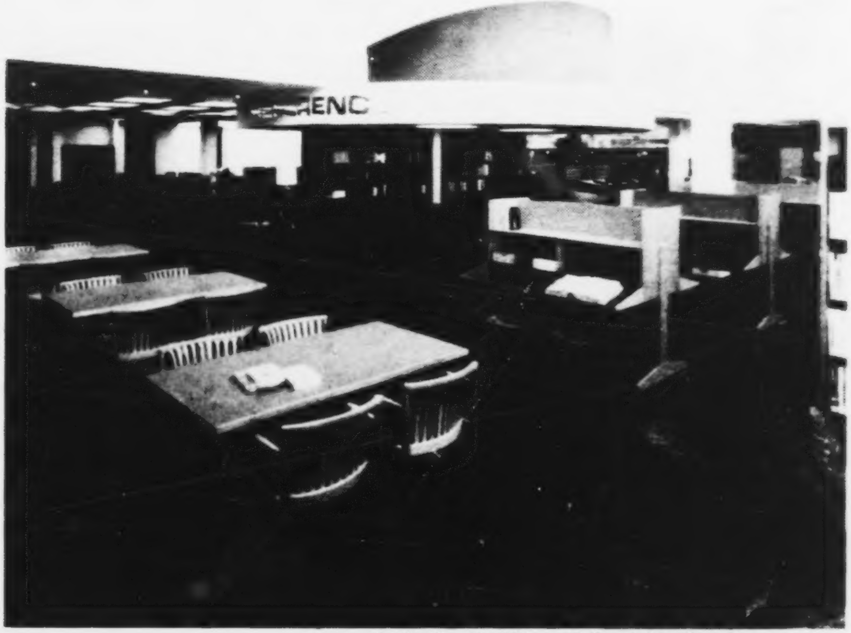


FIGURE 30

REFERENCE SERVICES AREA

Photo Credit: Robert Ward & Associates

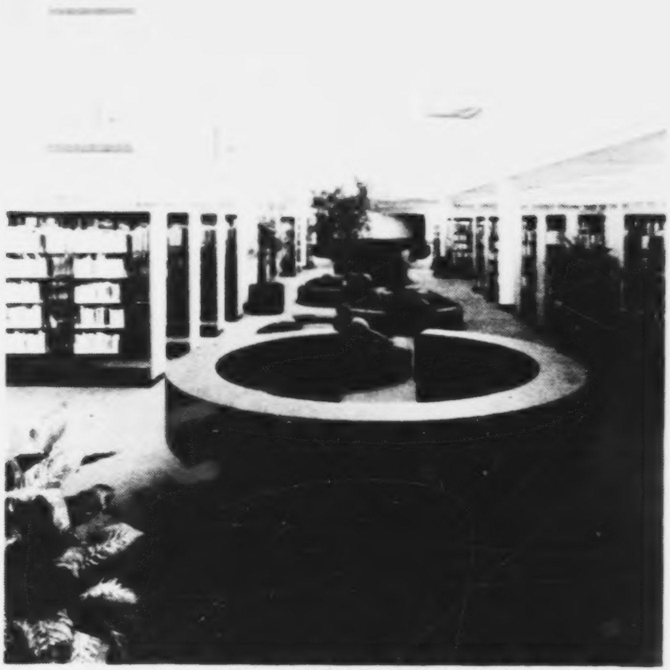


FIGURE 31

READERS' ADVISORY DESK AND READER SEATING AREA

Photo Credit: Robert Ward & Associates

FIGURE 32

ADULT READING AREA WITH PAPERBACK RACKS BEYOND

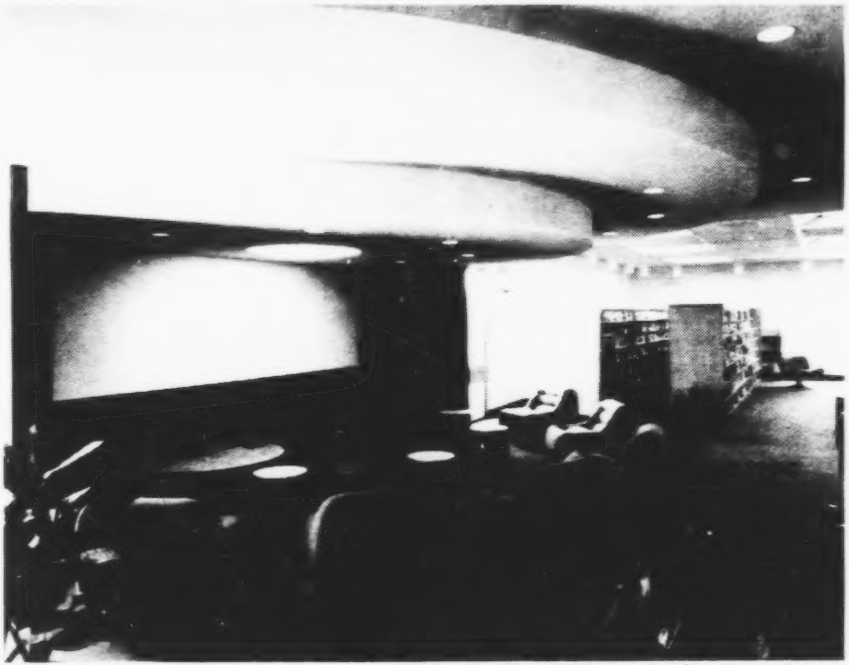


Photo Credit: Robert Ward & Associates

The square plan of the new addition provides optimum flexibility and access control, reflecting the open plan concept of contemporary libraries, Figure 34. Open stairways, bridges, light wells and skylights were used to mitigate the effect of the Visitor Center being placed betweeen library floors.

The new wing was developed with a minimum of window space because of the extreme heat during most of the year. The absence of windows not only frees wall space, but also significantly reduces the air-conditioning load. The deeply recessed window bays are glazed with bronze glass to help protect the interior from direct sunlight.

These conditions imposed somewhat different requirements for the interiors. We began by designing the street level reading room, Figure 35, in tan and hunter green so that the patron would immediately respond to the cool transition from the hot exterior. The ceiling was faced with reflective aluminum to further open the room and create the illusion of a reading area within a garden. The reflective metallic lounge seating, the stainless steel based lamps and planters and large trees further add to the illusion. The lamps help to establish intimacy in the vast space, which otherwise would not be conducive to concentration.

Brightly painted bands on the elevator walls are consistent with each floor's color scheme and also serve as a directory guide. Attached vinyl letters on these walls specify areas within each floor. When adjustments become necessary, the library staff has a supply of letters, which are easily changed.

To help describe circulation in the building, a different color scheme is assigned for each floor. Orange is the most intense color used in the basement level. With little natural light the designers felt this level was most in need of brightness and warmth. A large skylight and many plants also help to warm the space.

Above the green hued street level, the patron next encounters a second floor accented with red. This level includes an atrium open two floors to the skylight ceiling, with a mirrored wall to scatter the natural light throughout the area. This is the primary location of the reference materials, including the extensive current periodical collection.

On the third floor the Administrative offices and staff areas were assigned. Blue was chosen for this floor because we felt that the larger number of full-time staff members located on this level would be less likely to tire of the blue range than some of the brighter colors found on other floors.

FIGURE 33

SITE PLAN

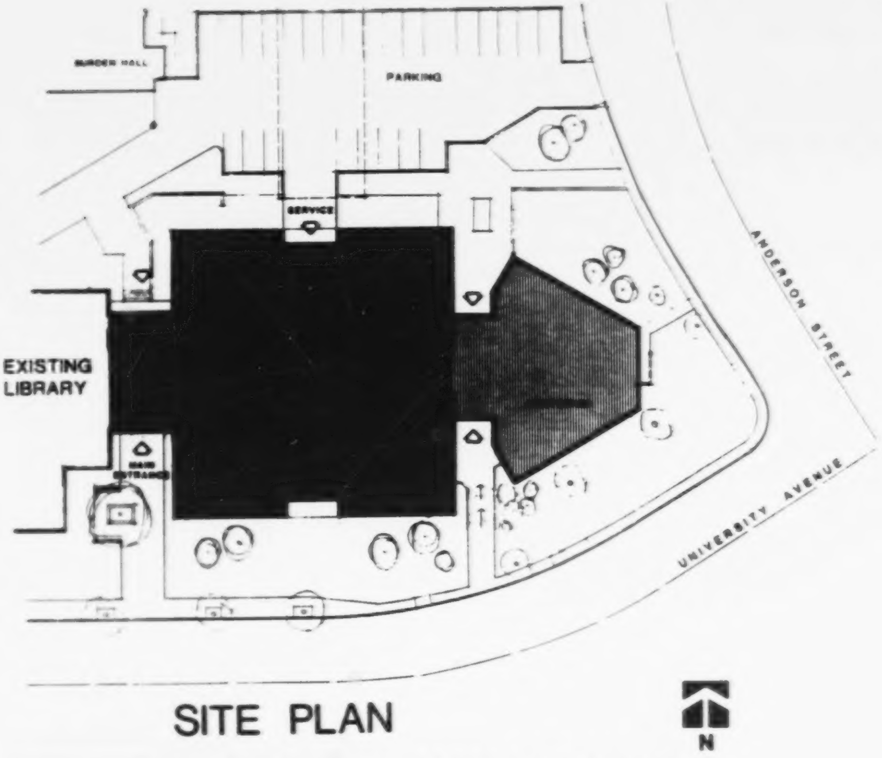

BURDEN HALL
PARKING
SERVICE
EXISTING LIBRARY
MAIN ENTRANCE
ANDERSON STREET
UNIVERSITY AVENUE
SITE PLAN
N

FIGURE 34

TWO LEVEL ENTRY LOBBY

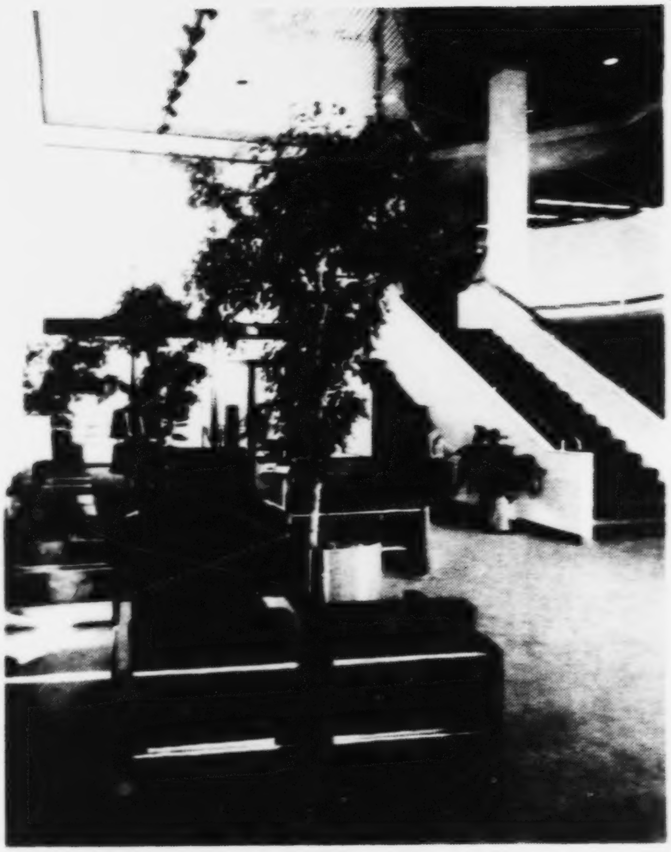


FIGURE 35

LOUNGE SEATING AREA

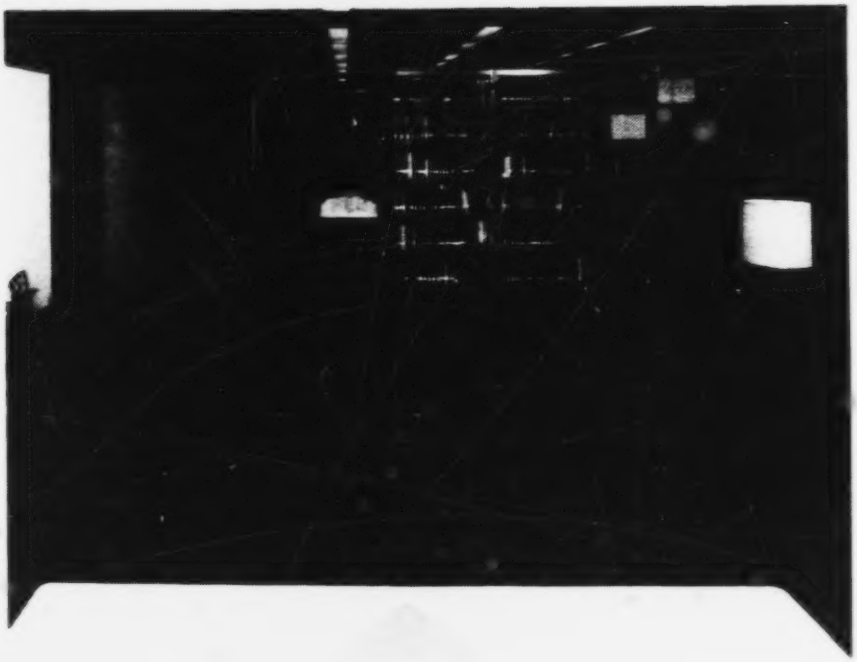


FIGURE 36

TYPICAL
READING AREA

Having designed libraries for more than 10 years, one of our prime considerations is visual excitement: the user must be encouraged by the environment to enter, search, learn and return often. Another necessity is comfort, which includes ease in using the facility, clear circulation, explicit locations and good seating.

Because a university library is more research oriented than a public one, seating became especially important. We were keenly aware that the medical students would spend many hours at study tables and carrels and we searched for seating that would remain comfortable, resist overturning when tilted backwards and be easily maintained. The flexible seating which we chose has a very open, continuous construction and a comfort level which pleases both staff and students. (Figure 36)

Warm accents of red oak were specified on all custom millwork, (Figure 37) carrels and tables. This combines well with the extensive amount of chrome and resin used throughout the space. Beige plastic laminate on tabletops and carrel work surfaces reflects light, appearing to float among the chrome bases.

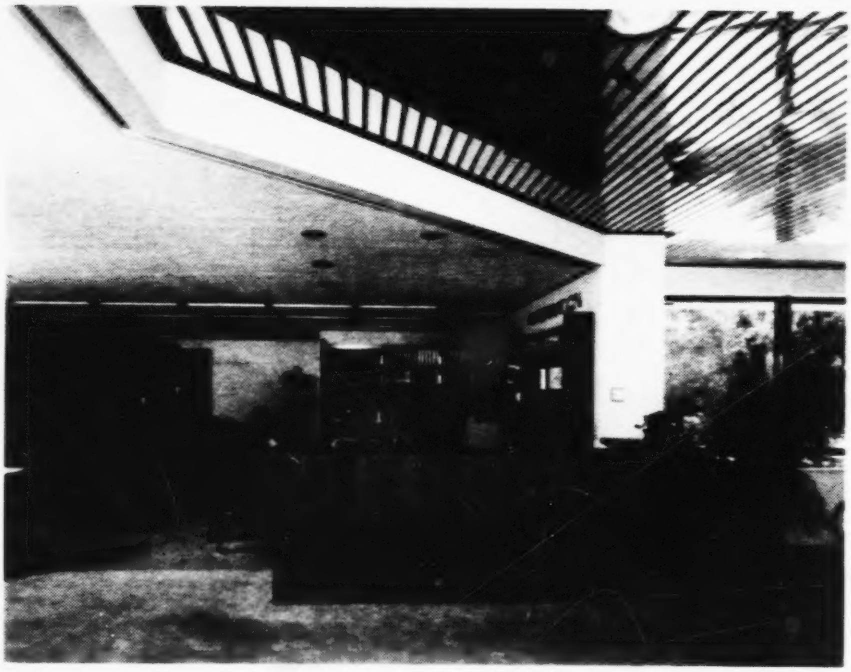
Custom created acrylic plaques on the end panels identify contents of the individual rows. Vinyl letters and numbers permit easy change as the contents of the stacks are continually redefined. Each plaque is magnetically affixed to a metal frame and can be extracted and changed within minutes. This contributes to ease of maintenance, another of our library design criteria. When the designer returns in five years, the furniture, carpet and all other finishes should still be fresh and show minimal wear, we believe.

To soften the presence of the large number of bookstacks in the facility, we designed an acoustical end panel clad in fabric which coordinates with the overall floor colors. The added acoustical control is appreciated by staff and students, and the formidable stacks seem to rest more comfortably in the reading rooms.

The new facility contains six seminar rooms, four conference rooms, a Learning Resources section, three typing rooms and the auditorium. The latter was placed in a one-story wing, supplying a column-free space and allowing it to function separately. The space has the flexibility of conversion into two lecture halls by closing a central partition. This wing is sunk into an existing grade near the intersection of two campus streets. Sunken entrance courts identify this as the Visitor Center. The designers specified a combination of subtle orange and green to denote an elegant yet utilitarian space.

FIGURE 37

STAFF REFERENCE DESK



We realize that public libraries are designed to be much more open and more easily accessible than academic libraries. Supervision is of primary importance in a public library because there is so much vandalism. A big priority in academic libraries is work space. This facility has seating space for 992 patrons in open carrels, locked carrels, table seating and lounge areas. Along with the open carrels, there are many individual rooms for graduate students to use.

With the rapid growth of medical literature, another important consideration for a research library is flexibility. This library will be able to accommodate almost twice as many books as the 200,000 volumes currently in the stacks.

Staff area growth must also be discussed. Staff requirements, both present and future, must be carefully addressed and solved. If the staff appreciates the solution, their enthusiasm will be contagious to the student.

Whether the library is intended for a few chosen scholars or for a traveling multitude of students, public space must be both livable and functional. In the pursuit of higher knowledge, a comfortable armchair and table lamp can be just as important as a good book.

HERMIT CRAB BUILDINGS

By Bud Oringulph

Editor's Note:
The text which follows is the narrative used by Bud Oringdulph in a slide presentation for the TALKING BUILDINGS workshop. These slides may be obtained from the Library Services Development Bureau of the California State Library, 1001 Sixth Street, Suite 300, Sacramento, CA 95814.

"Hermit Crab Buildings" is an interesting title that encourages all types of visions from a building which moves from location to location or to one of conical shape. But the "Hermit Crab Buildings" in this context are those built for one purpose and used for another, or a new, purpose.

Given all of the options of dwelling in a shell other than one specifically designed for current and future use, how have others accomplished successful solutions?

First of all, restoration/adaptive reuse/modification is the major thrust in the library physical expansion program of today.

New libraries (municipal) have dropped from 168 projects in 1979 to just 43 in 1984, while additions/renovations have proportionately risen and now outnumber new programs. Academic programs, however, have averaged 30 new/remodel programs per year for the last ten years nationally, with California dropping slightly from the previous average.

It is a fact that:

Libraries are emerging from all kinds of "other use" structures.

In Reading, Massachusetts an 1896 elementary school became a library.

In Montevallo, Alabama from an old telephone building.

In Stanford, Florida from a post office.

And from a rail depot in Mississippi, and a funeral home in West Virginia.

Library design has changed and is changing. When one examines past great libraries, this change becomes apparent.

At the turn of the century, McKim, Mead & White designed monumentality into their Boston Public Library. But it was a library designed for use by the common people. (Slide B1)

In contrast, a hundred years earlier, the French in the "Biblioteque National" gave a high order of importance to the central focus of the library - the Reading Room. While this was one of Europe's first great libraries, its monumental manner, with the French bent for "gothic", high volumes, and nonhuman values, does not make the reader comfortable. (Slide B2)

More recently our order of priorities has changed to create spaces in a more technologically advanced method, with concerns for light, air quality, and human scale. Oregon's Mount Angel Library is breathtakingly fresh, where each user feels a personal relationship to the space. In contrast, Japan's great architect, Isozaki, approached the Kitakyushu Library as a machine portraying a 21st century image - one of efficiency, simplicity, and high technology. (Slides B3 and B4)

Other new designs have come almost full circle. The new San Juan Capistrano's library was designed by Michael Graves in a post-modern form to reflect the historical character of that city. He developed user spaces filled with surprise and warmth. Here is an emphasis on contextual monumentality and a concern for human scale. (Slides B5 & B6)

These new buildings emphasize an important design condition that never changes - that of our human physical needs and our reactions to the space that surrounds us. (Slide B7)

But books have increased in numbers and availability since St. Wallberg . . . (Slide B8)

and even our reverence to their location and accessibility has tempered. (Slides B9 & B10)

Books still have one fundamental function - they are our resource to enjoyment and information. (Slide LB11)

and should be utilized in an orderly manner . . . (Slide B12)

in a comfortable way . . . (Slide B13)

with consideration to the delicacy of the books' environment . . . (Slide B14) and in consideration and encouragement of their use . . . (Slide B15)

in understandable spaces. (Slide B16)

Given all of these reverent historic thoughts, what do they have to do with adaptive reuse/restorations, rehabilitation, or building modification/alteration?

In fact, what do each of these terms mean and what questions arise when considering each?

All are basic issues in the design of a library - Image, Usability, Comfort, Economy, Security, Accessibility must be considered with any program. This may be simplified in the design of a totally new facility, but can be given equal emphasis in "alternate approaches".

Let us consider some of the alternates to new construction - and ask some questions.

So you want to "restore" your existing library building?

> Have you considered the comparative costs between new construction and restoration?
>
> How about space requirements, historic considerations, location impact?
>
> How about impacts on new/future standards (energy, systems)?
>
> Do you have the Carnegie syndrome - Beauty but impossible function?

Maybe you are considering an adaptive use . . .

- Where the library is a component of another multi-use function. (i.e., storefront, city center, etc.)
- More often these are "temporary functions" and you must ask how, if your library is adapted to an "unlikely" location, can it retain its identity and practicality?

How about someone else's shell?

> Maybe the library is an entity, but it may be a modification of a school house, a garage, or a funeral home.

- Is this a compromise or a "new" image?

- How do you evaluate comparative costs, and practicality of such an approach?

If you were to add to or modify your building, how do you:

- Accommodate "new" technology in systems?

- Develop an acceptable control and circulation system?

- Maintain library security?

Let us look at several examples of how others have solved these problems.

In 1977 the City of New Rochelle, New York faced a problem of a depressed central city. To revitalize the core, the City decided to rehabilitate an auto garage into a multi-service facility. What emerged is a central community library - a catalyst for the revitalization that is taking place. All has been accomplished with little compromise to an excellent functioning library. (Slides B17 & B18)

This 67,000 square-foot facility, of which 60% is the "old garage", places public functions on the main level to create a new focus for community activities. (Slides B19 & B20)

These include coffee shops, theatres, high public use functions, and interface with plazas and pedestrian movement ways.

Maximum consideration of energy and an "understandable" building developed vertical shafts of light and simple vertical movements.

This project was completed at just under $100.00 per square-foot and is an admirable example of intelligent reuse and conservation policies which resulted in a noncompromised solution. (Slides B21 & B22)

The Peabody Institute at Danvers, Massachusetts had a different problem. How to expand an 1891 historic building on a sensitive site in a neighborhood adverse to change? They chose to go underground. (Slides B23 & B24)

The neoclassic historic character was strongly retained in the existing building renovation, by minimizing "new design" implications, and reflecting this character in the new 1,200 square-foot addition tucked into the older building.

The existing two-story auditorium was modified into a new reference library which was subdivided for interest and increased space.

This solution increased the functionality of this 30,000 square-foot facility while providing a major contribution to conservation of economic, natural, and historic resources. (Slides B25 & B26)

Without doubt the Folger Library is unique in this country. It was built in 1928 to house the Shakespearean collection of W. Folger and to provide a stage for plays and museum for memorabilia. It reached a saturation point in the 1960's and this last year underwent renovation and addition. (Slides B27 & B28)

The original Paul Cret design was restored (lighting, HVAC, etc.), and a major 15,000 square-foot addition was tucked into an existing building courtyard. (Slides B29 & B30)

The "Elizabethan" reading areas, theaters, and museums are reflected in the design of the new research library rooms without compromising its contemporary character.

The modification is an intellectual solution sensitively capturing the historic spirit.

One of today's most major efforts of adaptive reuse and restoration lies in Chicago. (Slides B31 & B32)

In 1970 demolition was proposed for Chicago's marvelous 1897 public library.

> It was functionally obsolete, and in the opinion of many, deteriorated beyond economic repair. But the people of Chicago strongly objected and two programs followed:
>
> 1) The decision to restore the old library for a popular library and community focus facility; and 2) to locate another adequately sized facility for the required community program.

The old building was marvelously restored, retaining much of the existing decoration and most spaces. (Slides B33 & B34)

Goldblatt's department store was purchased to house the 550,000 square footage of general library requirements. (Slides B35 & B36)

This facility is being restored into both library and community mixed use requirements.

Interestingly, the study of Goldblatt's noted that the library program and general merchandizing program fit like gloves.

Stanford University's Special Collections Library is an excellent example of a paint-up/fix-up approach. (Slides B37 & B38)

The existing old cold, "narrow feeling" and confined spaces now feel peaceful and vibrant with the use of better lighting and brighter/warmer colors and materials. (Slides B39 & B40)

The Europeans have been adjusting and modifying old buildings much longer that we have in North America, and there are interesting lessons to be learned. (Slides B41 & B42)

At Catholic University in Eichstatt, West Germany, the designers maintained the entire integrity of the building's 17th century baroque exterior while building over an existing courtyard.

The solution closed the "U" courtyard with five levels of book stacks and developed a rather magnificent cloister courtyard reading room. (Slides B43 & B44)

This developed into an intriguing example of blending existing 17th century baroque-romanticism with 20th century industrial classicism.

In 1897 when the Beaux Arts splendor of the New York City Library was constructed, it was heralded as the greatest example of the "Peoples' Library". That splendor degenerated into a labyrinth of alterations, overcrowding, grime, and deterioration. (Slides B45 & B46)

After proposals of discarding the building for other uses, interest for its retention was generated and $11,000,000 was allocated for a first-phase restoration.

Restoration will include total interior/exterior renovation, including the grounds and modernization of operational systems required in a contemporary library. (Slides B47 & B48)

Most importantly, this great white elephant is providing the magnificence of a cautious restoration for functions of contemporary use. (Slides B49 & B50)

So, whether we consider reuse, modernization, or new classic designs (Slide B51),

the problems can be solved if approached with care and resourcefulness. (Slide B52)

In summation:

With the cost of new construction climbing (average $82/$110 without equipment);

with the central City revitalization or the academic center of the campus established;

with the increased interest and need of library resources; and

with the philosophy of space, light, and sound technology changing,

there is an excellent place for the "Library" in another function shell.

Let me leave you with four guidelines to test "alternate approaches to new construction".

Considerations must be:

1. What are first and long term costs?

2. Functionability and flexibility of your program and its future needs.

3. What is the potential image - both as a place in the City/the Community/the Campus and as a space acceptable to the importance of your library?

4. Is it a practical, noncompromising approach considering all factors of cost, schedule, function, etc.?

If your answers are positive, consider reuse.

Slides to go with discussion on "Hermit Crab Buildings" by Robert E. Oringdulph, AIA, at California Libraries Workshop. TALKING BUILDINGS.

These slides are not for publication and are for participants' viewing only by checking them out from the Library Services Development Bureau of the California State Library, 1001 Sixth Street, Suite 300, Sacramento, CA 95814.

1. Boston Public Library (BOOR/A Collection)
2. Bibliotheque National, Paris (BOOR/A Collection)
3. Mount Angel Abbey Library, Oregon (BOOR/A Collection)
4. Kitakyushu Library, Japan (BOOR/A Collection)
5. San Juan Capistrano, California Library (Architecture: The Journal of the American Institute of Architects, May 1984, page 216)
6. San Juan Capistrano Library (Architecture, May 1984, pages 258-259)
7. "Image of Man" (BOOR/A Collection)
8. Library attached to Church of St. Wallberg, Zutphen (BOOR/A Collection)
9. Salone Sistina, The Vatican (Anthony Hobson, Great Libraries)
10. Admont, France, Abbey Library (Hobson op.cit.)
11. Girl reading (R.E. Ellsworth and H.D. Wagener, The School Library, 1963, page 10)
12. Books on the floor (Ellsworth and Wagener, op.cit., page 96)
13. Man reading in a telephone booth (Ellsworth and Wagener, op.cit., page 53)
14. "The death of a book" (BOOR/A Collection)
15. Gettysburg College Library, study area (American Institute of Architects Journal, Mid-May 1982, page 82
16. Phillips Academy Library, Exeter, New Hampshire (BOOR/A Collection)

17. New Rochelle, N.Y. Library (Progressive Architecture, April 1980, page 137)

18. New Rochelle, N.Y. Library (Progressive Architecture, April 1980, page 138)

19. New Rochelle, N.Y. Library (Progressive Architecture, April 1980, page 138)

20. New Rochelle, N.Y. Library (Progressive Architecture, April 1980, page 139)

21. New Rochelle, N.Y. Library (Progressive Architecture, April 1980, page 139)

22. New Rochelle, N.Y. Library (Progressive Architecture, April 1980, page 138)

23. Peabody Institute, Danvers, Massachusetts (Architecture, November 1984, page 86

24. Peabody Institute, Danvers, Massachusetts (Architecture, November 1984, page 87

25. Peabody Institute, Danvers, Massachusetts (Architecture, November 1984, page 87

26. Peabody Institute, Danvers, Massachusetts (Architecture, November 1984, page 87

27. Folger Library, Washington, D.C. (Interiors, January 1984, page 145)

28. Folger Library, Washington, D.C. (Interiors, January 1984, page 145)

29. Folger Library, Washington, D.C. (Interiors, January 1984, page 144)

30. Folger Library, Washington, D.C. (Interiors, January 1984, page 145)

31. Chicago Public Library (AIA Journal, Mid-May 1979, page 192)

32. Chicago Public Library (AIA Journal, Mid-May 1979, page 193)

33. Chicago Public Library (Architectural Record, January 1978, page 99)

34. Chicago Public Library (AIA Journal, Mid-May 1979, page 192)

35. Chicago Public Library Annex in former Goldblatt's Department Store Building (Progressive Architecture, March 1982, page 24)

36. Chicago Public Library (Architectural Record, January 1978, page 98)

37. Stanford University Special Collections Library (Interiors, January 1983, page 104)

38. Stanford University Special Collections Library (Interiors, January 1983, page 104)

39. Stanford University Special Collections Library (Interiors, January 1983, page 104)

40. Stanford University Special Collections Library (Interiors, January 1983, page 104)

41. Catholic University Library, Eichstatt, West Germany (Architectural Review, March 1982, page 64)

42. Catholic University Library, Eichstatt, West Germany (Architectural Review, March 1982, page 66)

43. Catholic University Library, Eichstatt, West Germany (Architectural Review, March 1982, page 63)

44. Catholic University Library, Eichstatt, West Germany (Architectural Review, March 1982, page 65)

45. New York City Public Library (Architectural Record, August 1983, pages 74-75)

46. New York City Public Library (Architectural Record, August 1983, pages 76)

47. New York City Public Library (Architectural Record, August 1983, pages 78)

48. New York City Public Library (Architectural Record, August 1983, pages 79)

49. Phillips Academy, Exeter, New Hampshire Library (BOOR/A Collection)

50. Phillips Academy, Exeter, New Hampshire Library (AIA Journal, February 1985, page 6)

51. Markham, Ontario Library (Interior Design, August 1982, page 186)

52. Cambridge University, Kings College Library (BOOR/A Collection)

FINDING YOUR WAY THROUGH DRAWINGS AND SPECIFICATIONS

By Bud Oringdulph

The process of constructing a new library is complex. It begins with the development of a program that describes the clients needs which the architect converts to drawings and specifications. These, in turn, are transformed by the building contractor into an actual structure. You can follow the progress of architectural design and determine how well this process works for your project by being able to "read" and understand the drawings and specifications.

Unfortunately, we do not have time today to teach blueprint and specification reading. For such detailed knowledge I would refer you to books listed in some of the bibliographies in your packets (Ed. Note: See the appendix to these Proceedings). We will, however, try to supply some of the keys to reading these documents by examining samples from a set of construction drawings and specifications.

Transforming the idea of a building into a reality is somewhat like a puzzle that has to be assembled piece by piece - the placement of each piece dependent on other pieces. The number of pieces are almost infinite, depending upon the size and complexity of the project. However, there are some typical elements that we can look at.

A "standard" set of construction documents describes the components of a structure totally and thoroughly - size, content, relationships, materials, systems, colors, etc. These descriptions of every piece of the building are presented on drawings and coordinated so that the contractor may understand and construct the building. They involve both the drawings and books of specifications which describe process, requirements and materials. These documents we refer to as the construction documents or "working drawings and specifications."

Let's look at a sample of these drawings and specifications and note some of the most important guides to reading them. First some general orientation. Sets of schematic drawings will consist of only a few sheets, usually one for each floor of the building with one or two others devoted to showing a site plan and how the building might appear from the outside. There will perhaps be one or two sections, or "slices" through the building to show how the building may be organized internally. Similarly, schematic specifications, often called outline specifications will consist of only a few pages of rather generalized materials describing the nature of materials and systems expected to be used.

Design development, or preliminary plan sets will contain many more sheets. Some of these will show early stages for developing the structural, mechanical and electrical systems. Specifications at the conclusion of this phase will be somewhat more detailed representing tentative decisions that have been made on materials, systems and procedures to be used in construction.

The construction documents, which we will be sampling, are the final documents for the project. They are apt to be quite voluminous, even for a small project. The drawings may range from 50 to more than 100 sheets and the specifications may require two or more volumes. This will give you some idea as to the enormity of the work before us.

Fortunately, we are not going to attempt a plan review, though that might be helpful. Instead, I want to provide what I hope will be "helpful hints" for your own review of drawings and specifications. This includes noting a number of road signs that occur on drawings which, if you understand them, will enable you to proceed rather methodically in reviewing drawings.

First a word about construction drawings, themselves. Construction documents are actually a cumulation of drawings from several sources which are stapled or bound together in some manner. The first sheet will usually contain an index to the rest of the contents. Beginning with site plans (civil engineering drawings), the first set comprises the architectural drawings. These are followed by (1) structural drawings, (2) mechanical of HVAC (Heating, ventilating, air conditioning and often plumbing), (3) electrical and (4) others such as interiors and landscaping. Each sheet is numbered consecutively with letters preceding the numbers: A = architectural, S = structural, M = mechanical, P = plumbing, etc.

When you open your drawings, notice first the information carried typically along the right hand margin or at the bottom of each sheet. This is called the "title block" and provides valuable information including the location or purpose of the drawing and the date of its latest revision.

The site plan will provide information on how the building will fit onto the site and its relationship to existing structures and other improvements. Contours will show grade elevations. Only the exterior outline of the building, walkways, parking, etc. will show on this drawing. Landscaping, both existing and future may be shown.

The first reference to other drawings are likely to appear on the floor plans. A grid often appears on these drawings with lines numbered along one side and lettered "A, B, C, etc." on the other. This grid, which usually follows the column lines, provides a means for referencing a given point for comment, i.e. in Figure 38, grid points 15 F-G will locate one of the exterior doors.

Now to other road signs. These references enable the reader to follow the same part of the building or the same detail from one drawing to the next. By and large, this process takes the plan reader from the general to the specific. As we move through the drawings, plans and details are often described sequentially in larger and larger scale.

Let's take an example. Looking at Figure 39, the arrow points to another kind of sign: a circle inside of a diamond. Notice the dark area facing the stair case. This symbol indicates that further information, in this case an elevation of the staircase, will be found on sheet A4.7 and will appear as drawing A on that sheet. Figure 40 shows what we would find by turning to this detail.

Another sign appears at the arrow on Figure 41. The symbol at the top of the page and the long heavy line attached to it shows that a building section (slice) has been drawn at this point. It appears as Section A on Sheet A3.1. The arrow shape surrounding the circle shows the direction toward which you will be looking when viewing the section or slice of the building. A portion of that drawing is shown in Figure 42. As you can see, each sheet adds more details and reference points, each of which should be correlated and reviewed by you.

To allow suppliers and contractors a clear understanding of the required quantities of items such as doors and windows, "schedules" are provided both in the drawings and the specifications. These schedules use a matrix format to relate all of the required information relative to type, dimensions and special requirements. A simple schedule is shown in Figure 43 giving room finishes. To describe the finishes to be given a particular space the architect may refer to the room finish schedule using a code such as "A203B" which would be interpreted:

Floor: Carpet
Base: Oak (white)
Wainscott: N/A
Wall: Vinyl wall fabric (Tackable)
Ceiling: Paint: Flat

FIGURE 38

GRID POINTS

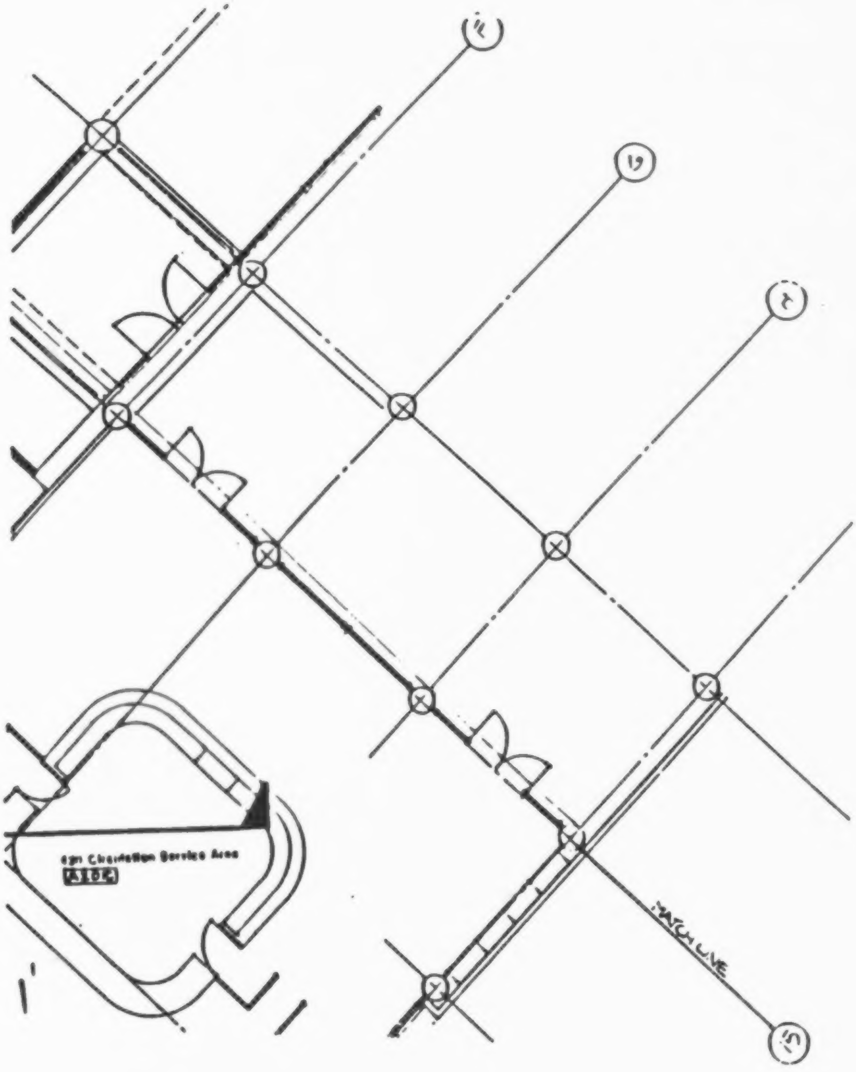

Circulation Service Area
MATCH LINE

FIGURE 39

KEY SIGN FOR ELEVATIONS

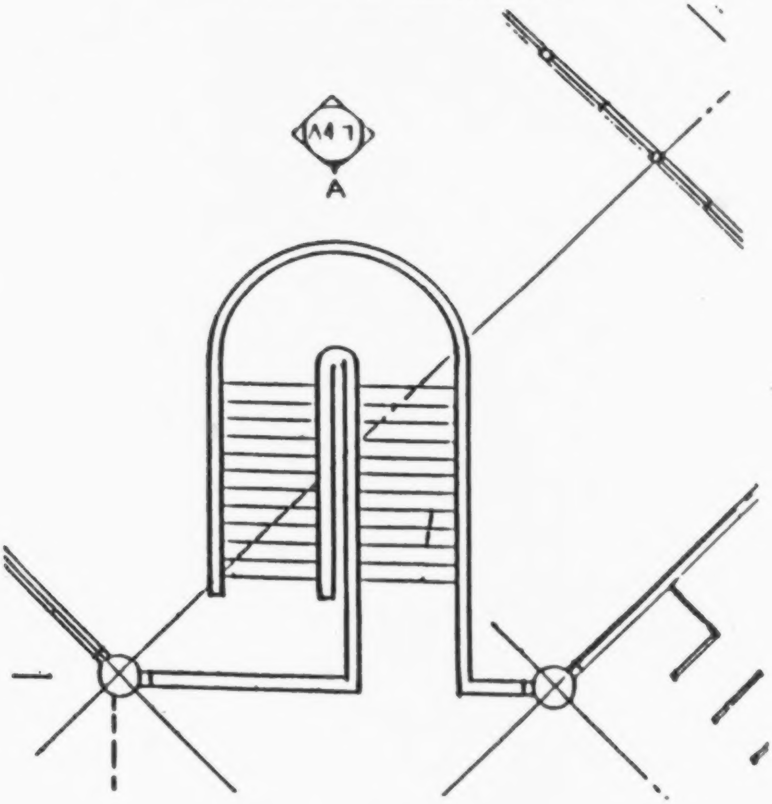


FIGURE 40

INTERIOR ELEVATION RELATED TO THE KEY IN FIGURE 27

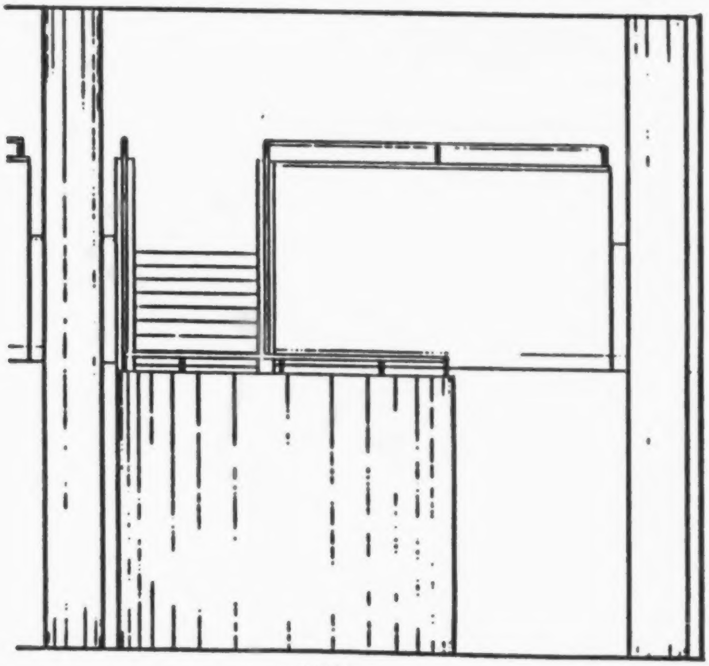


FIGURE 41

SECTION (BUILDING SLICE) KEY

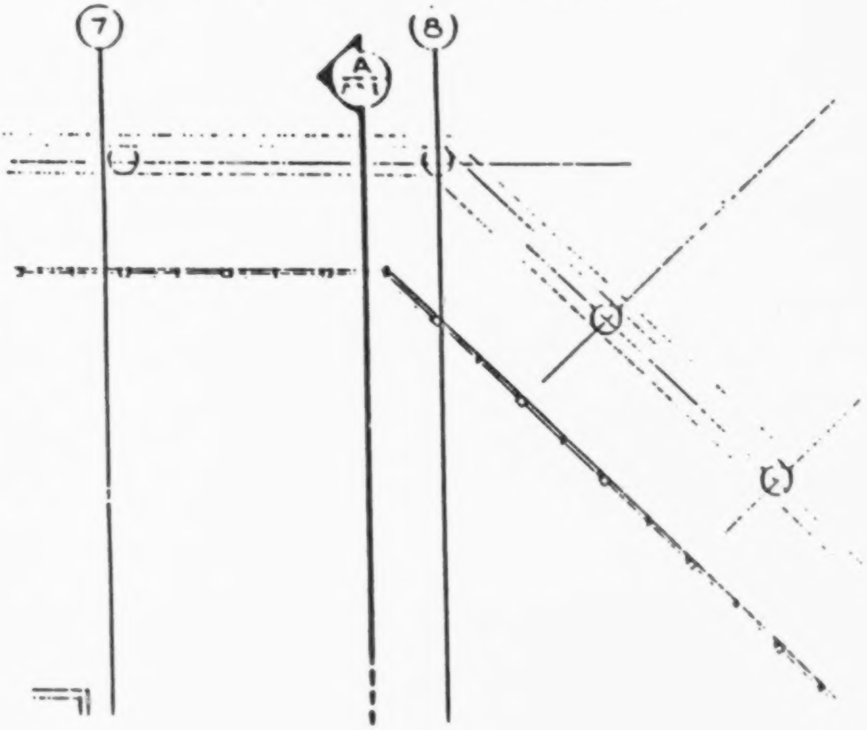
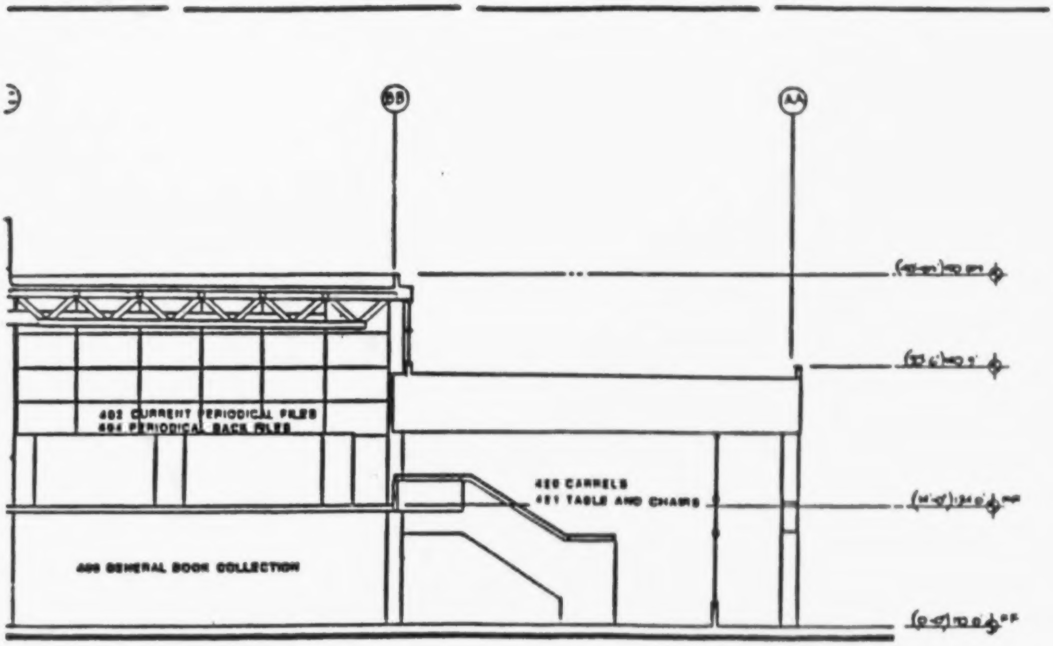


FIGURE 42

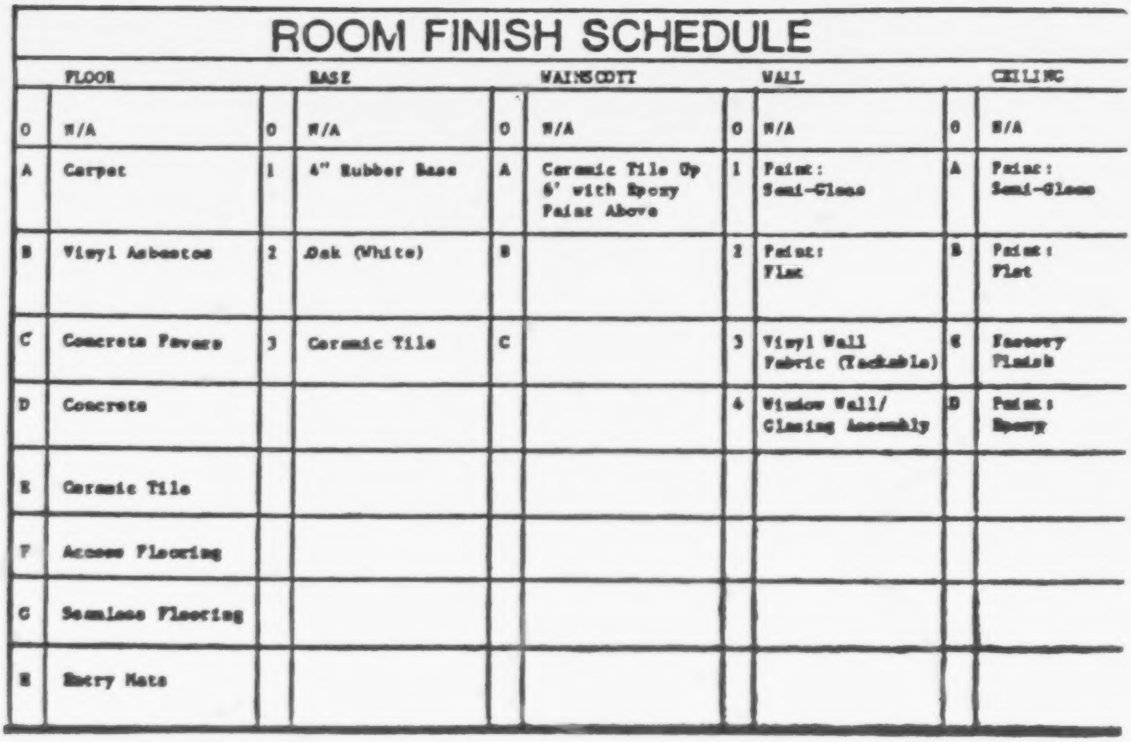
PORTION OF A BUILDING SECTION


BB
AA
402 CURRENT PERIODICAL FILES
404 PERIODICAL BACK FILES
420 CARRELS
421 TABLE AND CHAIRS
400 GENERAL BOOK COLLECTION

BEST COPY AVAILABLE

FIGURE 43

ROOM FINISH SCHEDULE

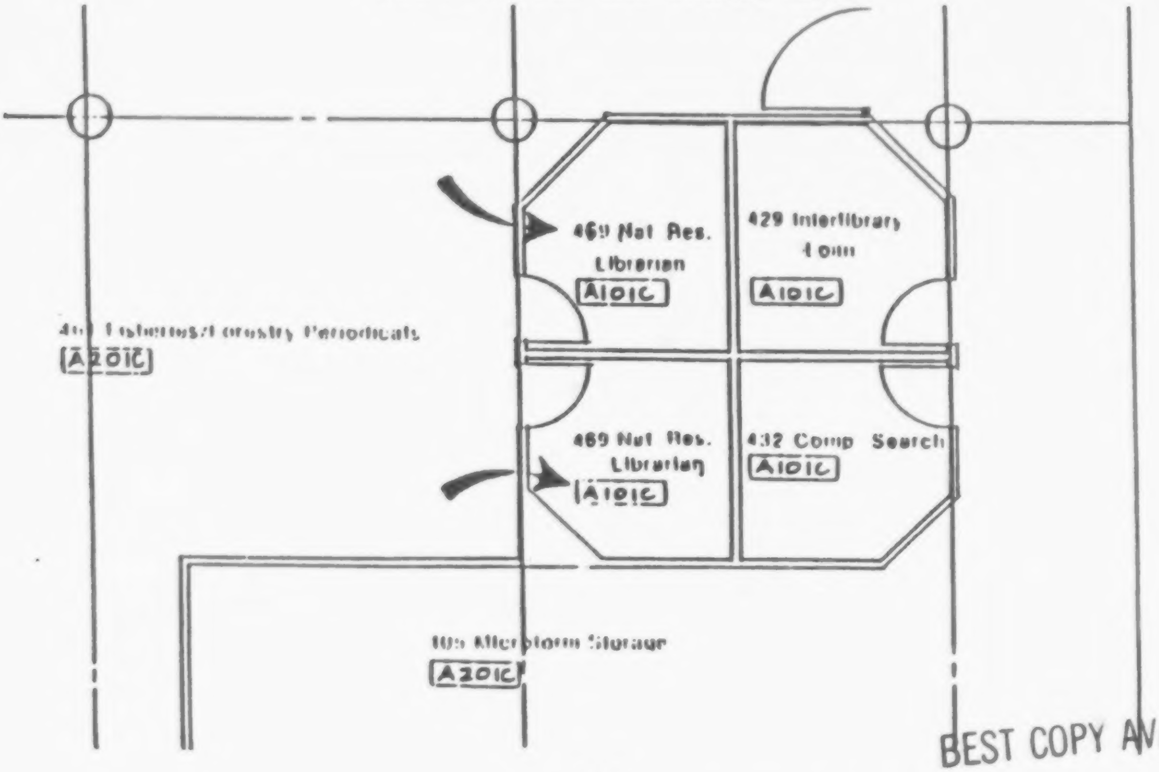


ROOM FINISH SCHEDULE

	FLOOR		BASE		WAINSCOTT		WALL		CEILING
0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
A	Carpet	1	4" Rubber Base	A	Ceramic Tile Up 6' with Epoxy Paint Above	1	Paint: Semi-Gloss	A	Paint: Semi-Gloss
B	Vinyl Asbestos	2	Oak (White)	B		2	Paint: Flat	B	Paint: Flat
C	Concrete Pavers	3	Ceramic Tile	C		3	Vinyl Wall Fabric (Tackable)	C	Factory Finish
D	Concrete					4	Window Wall/ Glazing Assembly	D	Paint: Epoxy
E	Ceramic Tile								
F	Access Flooring								
G	Seamless Flooring								
H	Entry Mats								

FIGURE 44

ROOM NUMBERS AND FINISH KEYS


469 Nat Res. Librarian
A101C
429 Interlibrary Loan
A101C
Fisheries/Forestry Periodicals
A201C
469 Nat Res. Librarian
A101C
432 Comp Search
A101C
Microform Storage
A201C

BEST COPY AVAILABLE

Following this code for each space will enable you to determine whether or not finishes are acceptable or need modification.

Returning to the floor plans, other valuable information can be found beyond the layout of spaces themselves. For instance, in Figure 44, the top arrow points to the room number - a unique room number is given to every space as a means of identifying it. The lower arrow points to a rectangle containing an alpha numerical code that indicates the basic finishes for floors, walls, etc. as described in the preceding paragraph.

Plans cannot describe areas in three dimensions. Therefore the building exterior and interior walls are shown in elevation drawings which, again, are described in progressively larger detail. Figure 45 shows a segment of a typical exterior wall while Figure 46 shows an interior wall that has been elevated.

Some parts of a building are often described more elaborately to simplify construction such as a piece of equipment, a cabinet or a seating unit. Figure 47 shows the elevation of a wall containing casework (cabinetry) and, Figure 48, a Reference Desk.

Interwoven in this network of component drawings are many other details such as reflected ceiling plans showing lighting, heating/ventilating outlets, etc. Reflected ceiling plans can be especially baffling to those not accustomed to them. Often people assume that the plan is drawn from the vantage point of someone lying prone on the floor and looking up at the ceiling. But this is not the case. The plan is drawn from above, as if you are looking through the ceiling, Figure 49. The rectangles represent fluorescent fixtures; the circles are incandescent lights. The squares are ceiling tiles and the parallel lines drawn close together represent a special kind of ceiling material. A close study of reflected ceiling plans is necessary for they contain a great deal of important information.

Tucked between the walls, behind the ceiling, underneath the floors and in other spaces and rooms are the structural, electrical and mechanical systems that support the building and make it usable. Separate drawings are provided for each system with similar road signs. In addition, there are special symbols that must be translated. A key to these usually appears on the first page of the structural, mechanical and electrical engineering sets of drawings. After using these for a while, they will become as familiar to you as the signs along the freeways - though sometimes no less confusing. The books on blueprint reading also contain keys to the more frequently used symbols as does the Ramsey/Sleeper volume Architectural Graphic Standards which is an invaluable reference tool, by the way.

FIGURE 45

EXTERIOR ELEVATION DRAWING

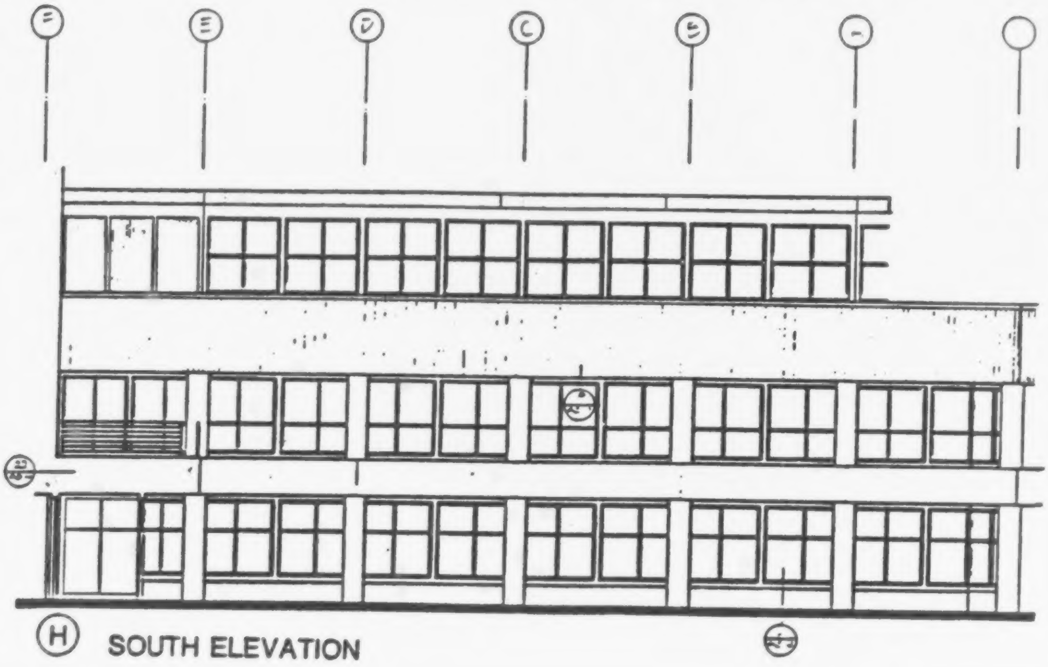

F
E
D
C
B
H
SOUTH ELEVATION

FIGURE 46

INTERIOR ELEVATION DRAWING

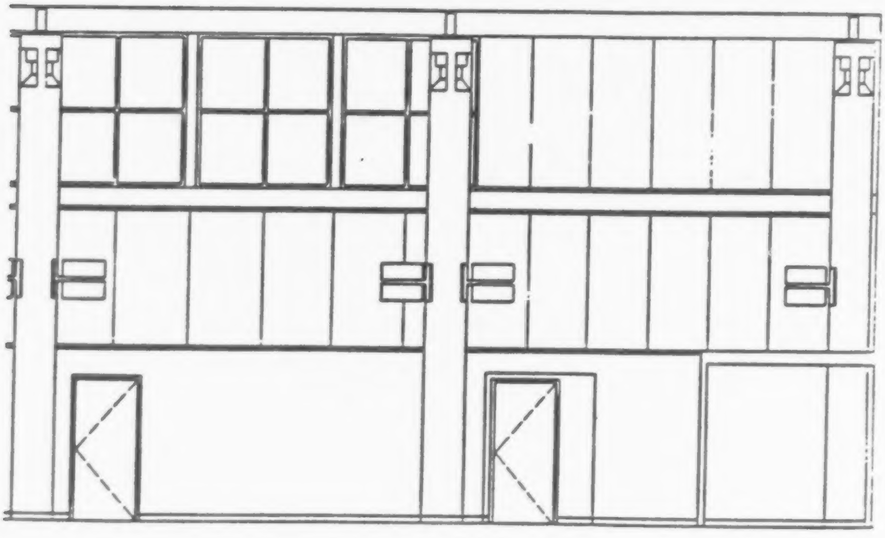


FIGURE 47

INTERIOR WALL ELEVATION WITH CASEWORK

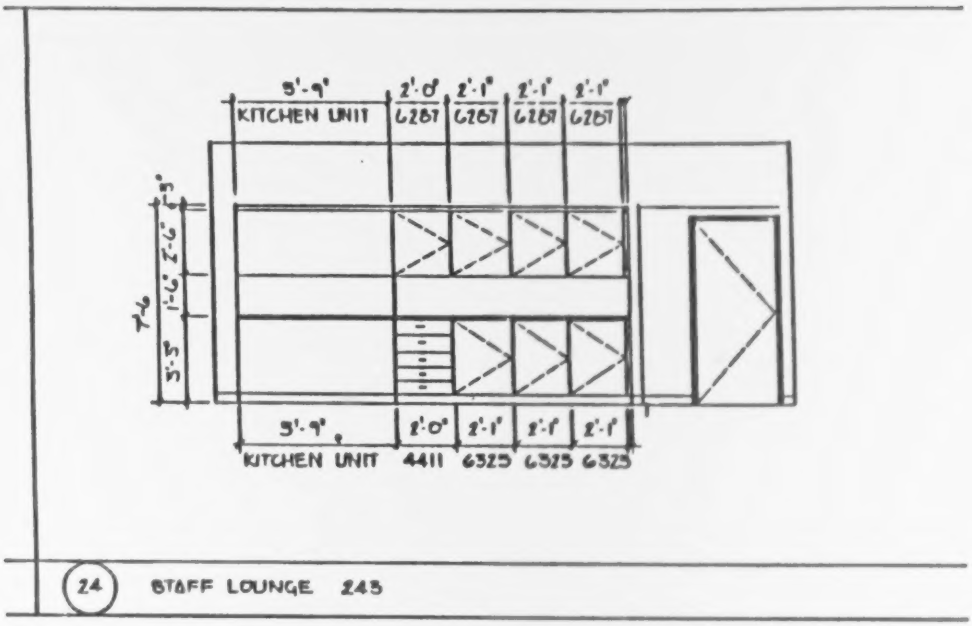
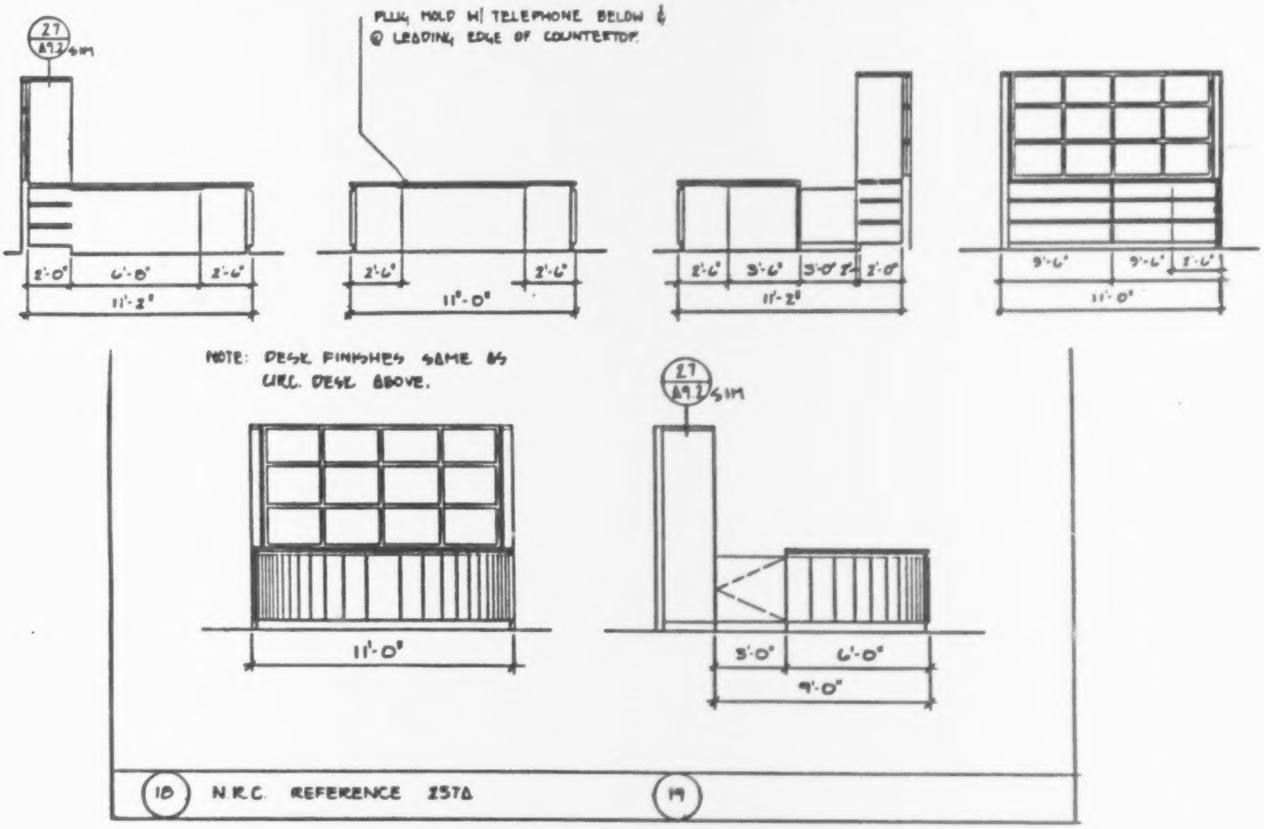

5'-9"
KITCHEN UNIT
2'-0"
6287
2'-1"
6287
2'-1"
6287
2'-1"
6287
7'-6"
1'-3"
2'-6"
1'-6"
3'-3"
5'-9"
2'-0"
2'-1"
2'-1"
2'-1"
KITCHEN UNIT
4411
6325
6325
6325
24
STAFF LOUNGE 243

FIGURE 48

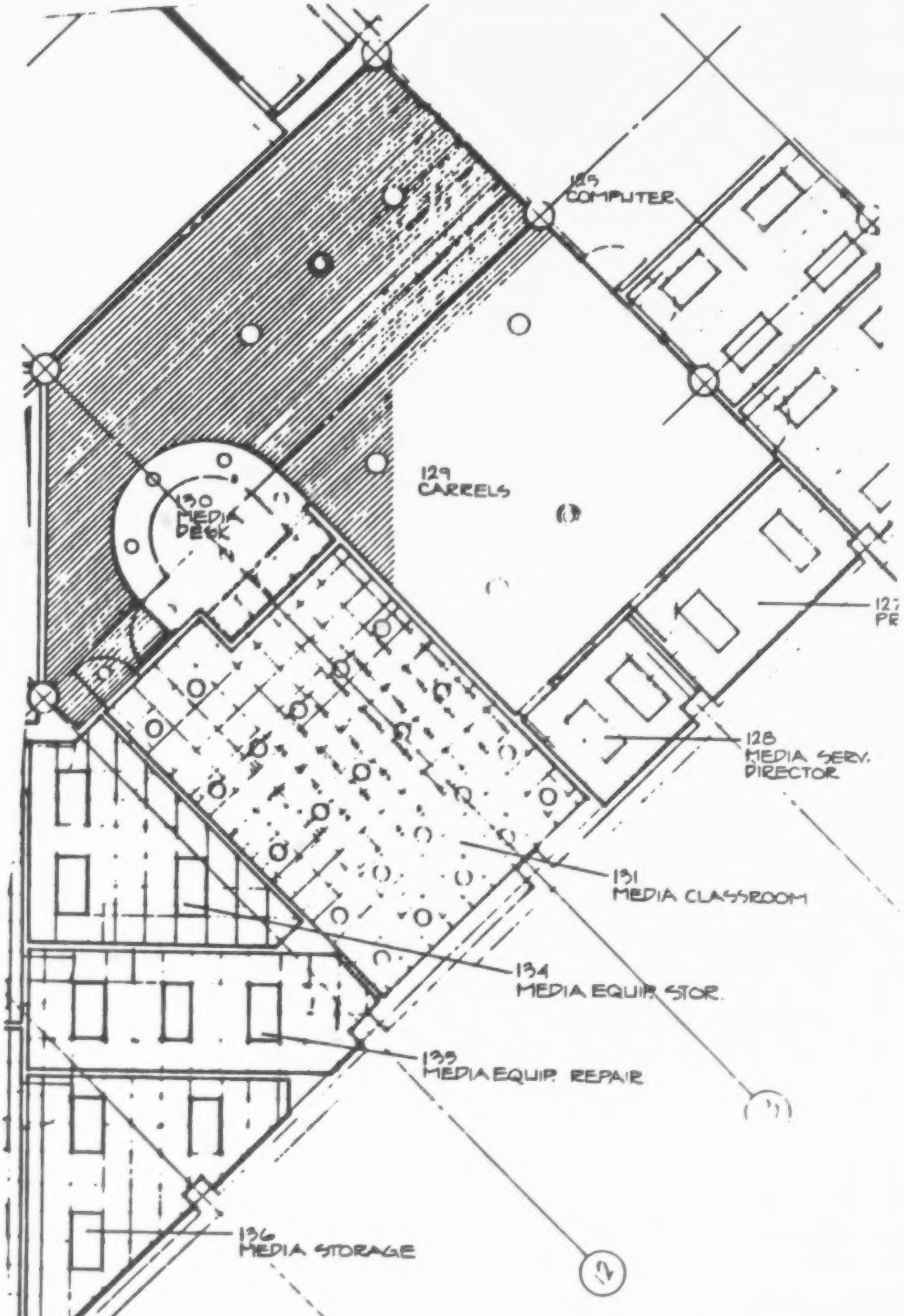
REFERENCE DESK: INTERIOR AND EXTERIOR ELEVATIONS


27
A9.2
SIM
PLUG MOLD W/ TELEPHONE BELOW &
@ LEADING EDGE OF COUNTERTOP
2'-0"
6'-8"
2'-6"
11'-2"
2'-6"
2'-6"
11'-0"
2'-6"
3'-6"
3'-0"
2'-0"
11'-2"
9'-6"
9'-6"
2'-6"
11'-0"
NOTE: DESK FINISHES SAME AS
CIRC. DESK ABOVE.
11'-0"
3'-0"
6'-0"
9'-0"
18
N.R.C. REFERENCE 237A
19

BEST COPY AVAILABLE

FIGURE 49

REFLECTED CEILING PLAN



125 COMPUTER
129 CARRELS
130 MEDIA DESK
127 PE
128 MEDIA SERV. DIRECTOR
131 MEDIA CLASSROOM
134 MEDIA EQUIP. STOR.
135 MEDIA EQUIP. REPAIR
136 MEDIA STORAGE
12

Structural drawings, which may be of less interest to you than others, tell the contractor how the building is to be put together. This requires a general structural plan and many details. A typical detail for a column of a special shape is shown in Figure 50.

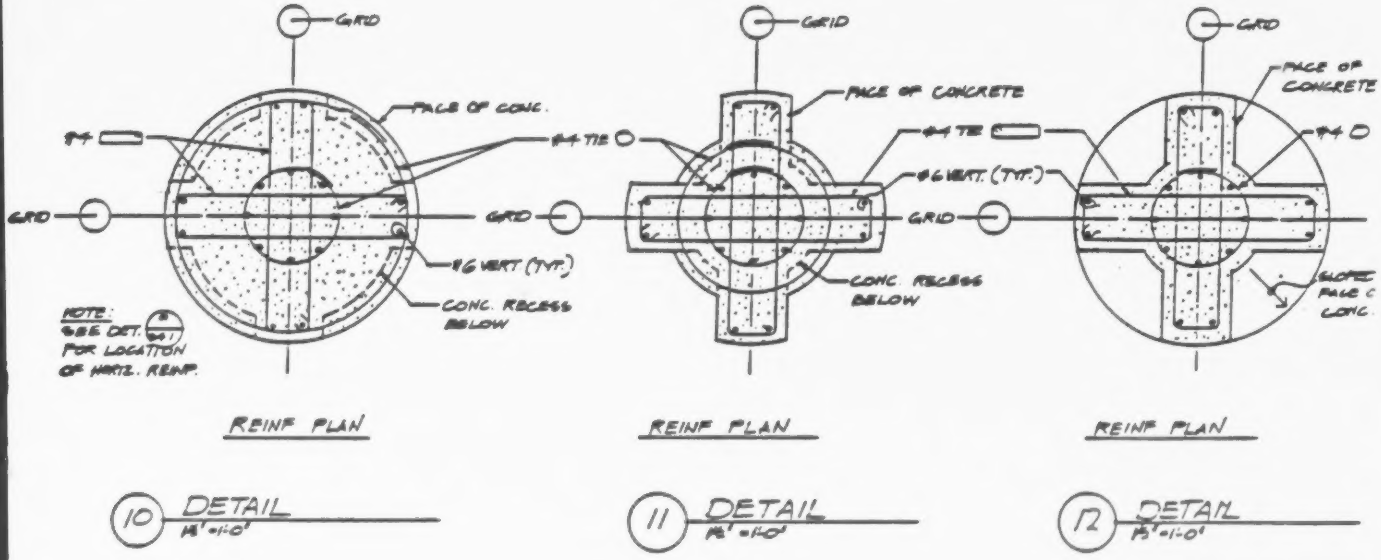
The mechanical system description starts with the full site plans indicating the arrival of water, gas, and power, and on-site mechanical elements of water supply, drainage, sprinklers, etc. Drawings indicating "in-building" mechanical are also developed from water piping to air distribution. Drawings of the mechanical systems may also be of less interest to you than some others. However, you should be able to read them well enough to understand where diffusers and air returns are located in relationship to the layout of offices, desks, etc. These can be the source of later discomfort if not properly sized and located. Be sure to ask your architect if you have any questions about this. Figure 51 is of a typical system with ducts shown in solid lines.

The electrical contractor also provides a description of what is intended for the electrical power and signal systems of the building. Everything is included from characteristics of power to lighting fixture design and locations. Electrical drawings are usually divided into two groups and may be expanded to three groups. One will show lighting fixtures and the wiring runs to them, Figure 52. The second group will represent the layout for power, Figure 53. In this day of computers and more sophisticated electronic communications, some electrical engineers add a third set of drawings devoted solely to communications.

Because the drawings are limited to defining construction systems, they are supplemented by books of specifications describing: all owner/contractor relationships, bidding documents, and special conditions of the project. These specifications describe each building component, and give the generic or trademark names of products to be used. The specifications also describe in considerable detail how work is to be done and the qualities of workmanship required. In reading the specifications, you will want to compare quantities and types of materials important to the library with those called for in the drawings. Call the architect's attention to any discrepancies you may find. I warn you that books of specifications are hardly exciting reading, but they are necessary for the person wishing to fully understand what is going into his or her library building.

FIGURE 50

STRUCTURAL DRAWING

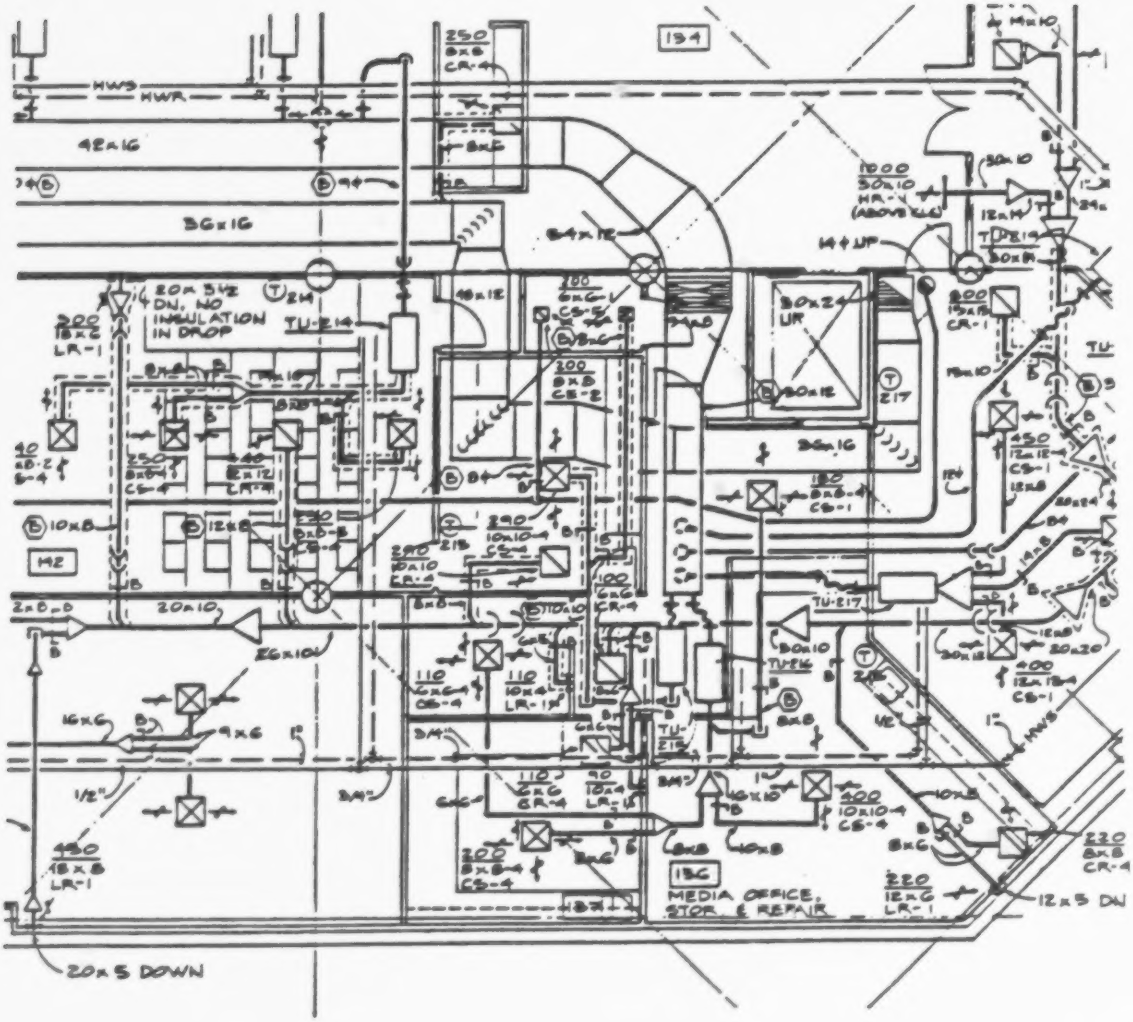

GRID
FACE OF CONC.
#4
#4 TIE
GRID
#6 VERT (TYP.)
CONC. RECESS BELOW
NOTE:
SEE DET.
FOR LOCATION
OF HORIZ. REINF.
REINF PLAN
10 DETAIL
½" = 1'-0"
GRID
FACE OF CONCRETE
#4 TIE
#6 VERT. (TYP.)
GRID
CONC. RECESS BELOW
REINF PLAN
11 DETAIL
½" = 1'-0"
GRID
FACE OF CONCRETE
#4
#4 TIE
GRID
SLOPE
FACE C
CONC.
REINF PLAN
12 DETAIL
½" = 1'-0"

BEST COPY AVAILABLE

BEST COPY AVAILABLE

FIGURE 51

MECHANICAL EQUIPMENT (HVAC) DRAWING


HWS
HWR
42x16
36x16
134
250
8x8
CR-4
8x6
84x12
1000
30x10
HR-4
(ABOVE CLG)
30x10
12x14
14 ϕ UP
T 219
30x8
20x 3½
DN, NO
INSULATION
IN DROP
T 214
TU-214
200
18x6
LR-1
48x12
200
6x6
CS-5
B 8x6
30x24
UR
200
15x15
CR-1
200
8x8
CS-2
B 30x12
T 217
15x10
40
8x8-2
S-4
250
8x6
CS-4
40
8x12
CR-4
B 8
36x16
180
8x8-4
CS-1
450
12x12
CS-1
12x8
20x24
B 10x8
B 12x8
220
8x8-3
CS-4
T 213
290
10x10
CS-4
290
10x10
CR-4
100
6x6
CR-4
142
14x8
20x10
26x10
B 110x10
TU-217
30x10
TU-216
12x8
20x20
30x12
T 216
400
12x12
CS-1
1"
HWS
110
6x6
CS-4
110
10x4
LR-1
B 8x8
TU-215
3/4"
1/2"
16x6
9x6
1"
3/4"
110
6x6
CR-4
90
10x4
LR-1
10x10
400
10x10
CS-4
10x8
8x6
450
18x8
LR-1
200
8x8
CS-4
8x6
8x8
10x8
136
MEDIA OFFICE,
STOR. & REPAIR
220
12x6
LR-1
220
8x8
CR-4
12x5 DN
20x5 DOWN

BEST COPY AVAILABLE

FIGURE 52

ELECTRICAL DRAWING: LIGHTING

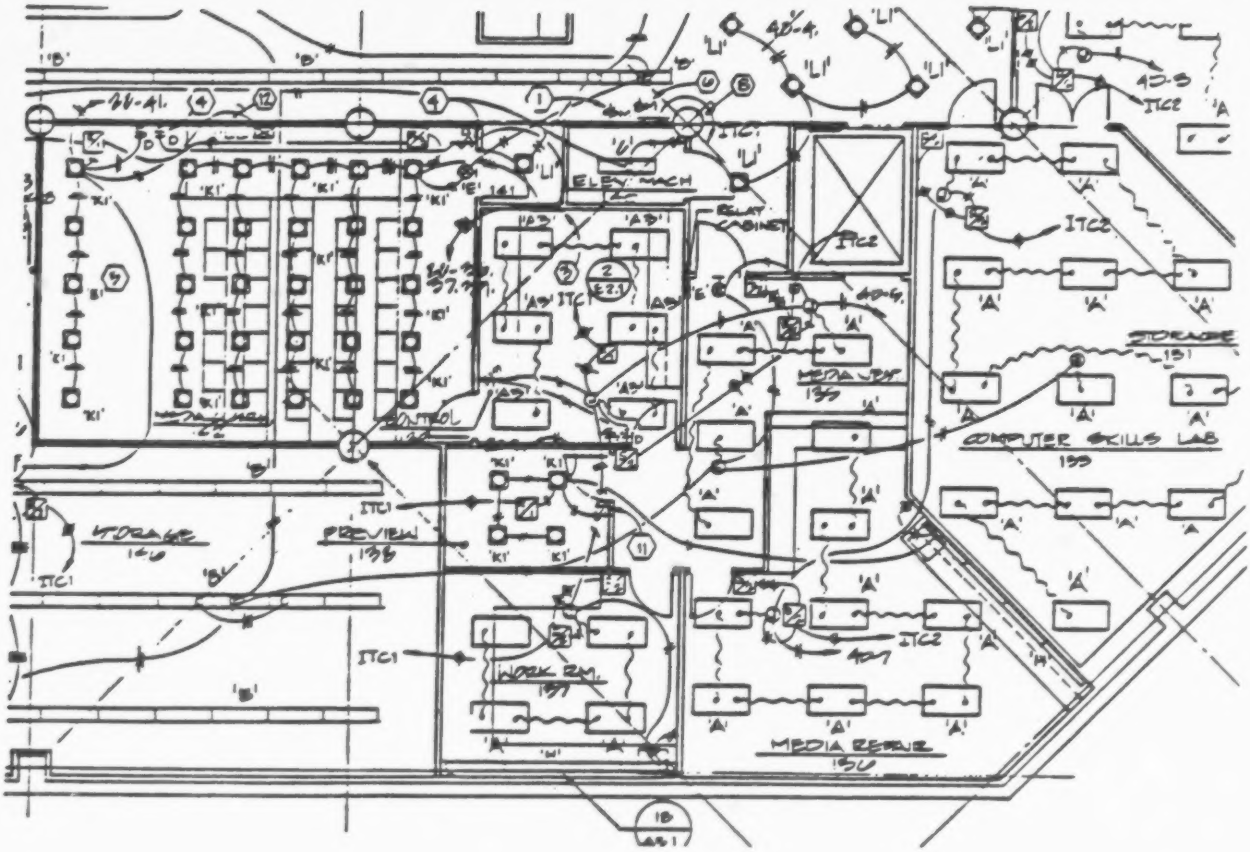
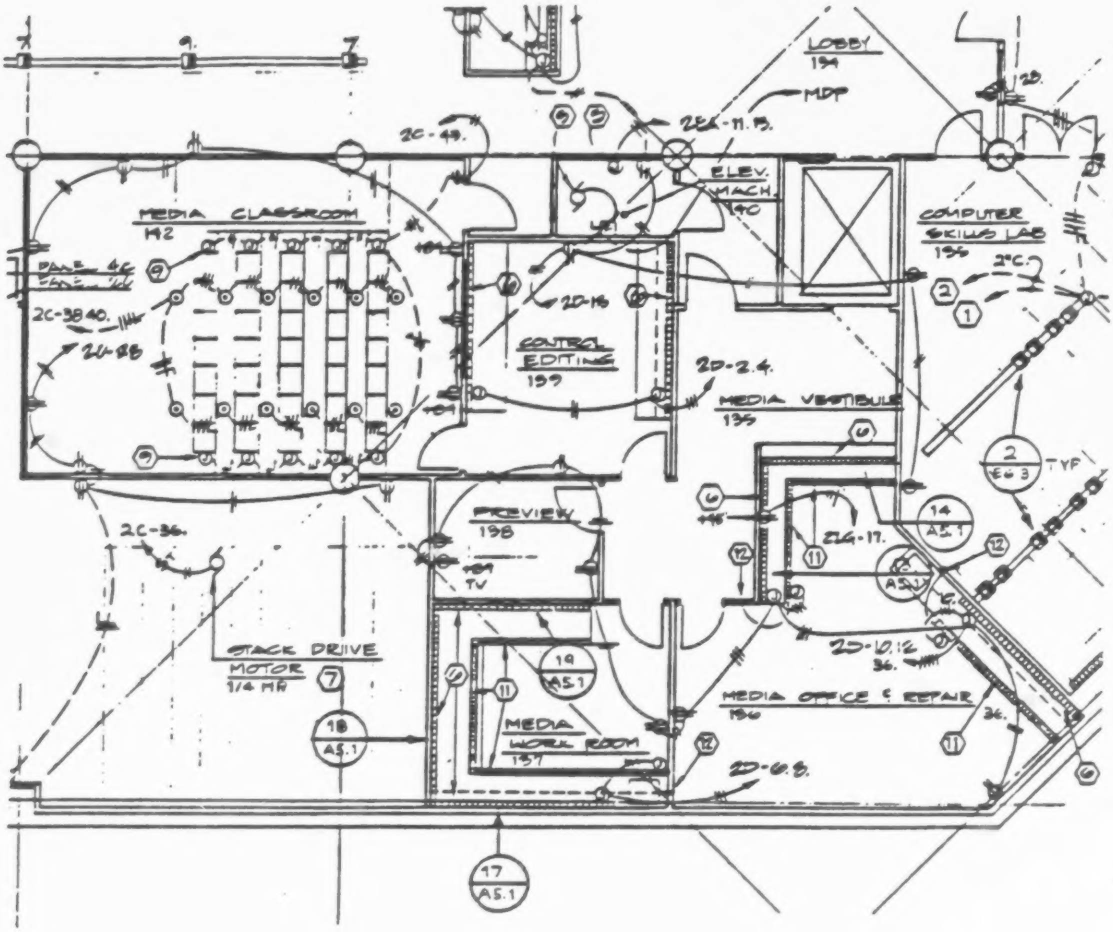

'B'
'K1'
'E'
'L1'
40-4.
40-3
ITC2
ITC1
ELEV. MACH
RELAY CABINET
'A3'
'A'
40-6.
MEDIA JST
135
STORAGE
131
COMPUTER SKILLS LAB
133
CONTROL
STORAGE
140
PREVIEW
138
WORK RM.
137
40-7
MEDIA REPAIR
150
'H'
E2.1
AS.1

FIGURE 53

ELECTRICAL DRAWING: POWER


LOBBY
134
MDP
2C-47.
MEDIA CLASSROOM
142
PANEL 4C
2C-38.40.
2C-28
ELEV.
MACH.
140
COMPUTER
SKILLS LAB
2C
CONTROL
EDITING
139
2D-16
2D-2.4.
MEDIA VESTIBULE
135
PREVIEW
138
TV
2C-36.
2IG-17.
14
AS.1
2
E6.3
TYP
STACK DRIVE
MOTOR
1/4 HP
18
AS.1
19
AS.1
MEDIA
WORK ROOM
137
2D-10.12
36.
MEDIA OFFICE & REPAIR
136
2D-6.8.
17
AS.1

BEST COPY AVAILABLE

As you can tell, it has been difficult to condense into this brief space the effort of drawing and specifying a building which may represent thousands of hours. But it is important for you to understand the complexity and thoroughness of the documents that explain the construction of the library building.

You must understand that good drawings define the program sequentially from the property boundary to the building, from its foundation to its roof, and each component contained therein. These documents contain definitions of each material from walls to carpeting, and from each chair to the terminal on the check-out counter. Good drawings outline the conditions of bidding the project, the responsibilities of all involved from the owner to the supplier, and the conditions of completing the program.

The client does not need to be an expert on the contents of the document, but must be familiar enough so that they are in agreement with the product that will result from their use. This means you need to acquire an ability to read and understand the drawings and specifications. To this end, utilize your professional team to assist you in this undertaking. The process is exciting - enjoy it!

SPEAKING OF RESPONSIBILITIES; YOU THE CLIENT

By Raymond M. Holt

Now we enter the home stretch. After considering the role of each of the project team members, it seems appropriate to talk about the responsibilities of the client. In other words, what you must do. I'm sure that most of these items already appear in the copious notes you have been taking these past two days. However, I believe these responsibilities are worthy of reiteration.

Surprisingly, we find many clients entering facility development programs with only the vaguest notion of their responsibilities and the resultant implications. This has a severe adverse affect on the success of the project, especially after the design schedule has been set and the work moves inexorably to its conclusion. I am certain that those of us who have addressed you these past two days could fill many hours relating our "horror" stories of time and opportunity wasted because clients misunderstood their role.

Perhaps the primary grievance, here, is failure on the part of the client to perceive the amount of time and energy which they must give to the facility programming and planning process. Facility planning is NOT something that one undertakes in idle moments of the day. It requires dedication of large blocks of time. Schedules must be accommodated regardless of whether they are convenient. When dealing with consultants and design professionals, remember that their time is money, to put it bluntly. Among other things, they expect meeting participants will be fully prepared with all necessary resources in hand. They also expect meetings to begin and end on schedule. When material is distributed for review, they expect the deadlines for review comments to be met. Otherwise, work cannot move forward and delays result which jeopardize the project calendar. Is this kind of commitment too much to ask?

If your facility project is a major one, we ask that you seriously review the responsibilities you are assuming and carefully evaluate their impact on your own routines. In many cases, you may wish to consider delegation of certain routine duties so that you can concentrate time, energy and attention on the facilities project. Remember that this is a long-term process which will stretch over several years with some periods of concentrated effort. Your attendance at this Workshop acknowledges your interest and concern in the process. We ask that you reinforce this by doing whatever is necessary to guarantee a high level of personal participation.

Now let's talk about some of the basic responsibilities which most clients must assume.

A. ASSEMBLING AND PROVIDING ACCURATE INFORMATION

Library building projects at every stage require substantial infusions of accurate information. The client, and library staff particularly, must be ready to assemble and provide such information expeditiously. This is especially true when Needs Assessment and Building Program preparation studies are underway. It is often surprising how long it takes to receive accurate and pertinent information about very basic items. In part this is because the questions which must be answered have not been asked before - or have not required anything more than general responses. Almost as annoying as not having the information in hand is finding that no staff person is available to make the necessary counts, measurements, etc. While it is probably impossible to anticipate every possible information need, please be ready to furnish information as rapidly as you can. Delays in receiving responses can have serious consequences.

B. SELECTION OF TEAM MEMBERS

Oftentimes the client has been so wrapped up in getting the project approved by agency officials that little or no thought has been given the selection of team members. As you have learned here, this is an extremely important step and one which deserves the client's full attention. While selection must await approval from agency officials, prepare the way by knowing what procedures will be followed. Discuss how selection will work in your agency with the appropriate personnel long before it becomes necessary to take this important step. Begin early in assembling the names of consultants, architects, and interior designers you want to have considered. Talk to others about their experiences with the selection processes as well as the credentials of individual firms.

To the degree possible, become familiar with building programs, architecture and interior design. Make the major architectural and interior design magazines regular reading to establish some familiarity with current practice. Evaluate the qualifications of others you'd like to have serve with you on the selection team. Prepare a statement of their credentials and be ready to recommend them to the appropriate office or official. Look forward to the execution of this responsibility for selecting your future project team mates by preparing for it.

C. CONTRACT ADMINISTRATION

Don't wait until you've selected the project team members to discover how the various contracts will be administered. The placement of this responsibility varies from agency to agency. You should have a clear understanding of the process and a knowledge of who will be responsible. This will promote coordination of effort and avoid problems sometimes encountered. Who will prepare the contracts and who will oversee their fulfillment? Often this is done by someone in a public works or engineering department or facility management office. Some agencies which lack the expertise or staff time are engaging facility managers or project managers to administer contracts. Occasionally, the responsibility may evolve on the Library Director. If this should happen to you, get sound advice from your agency's legal staff and others who may be familiar with the process and responsibilities.

The contract administrator must, among other duties, make certain that the team members fulfill their designated responsibilities. He or she must interpret the contracts as well as propose amendments where necessary to fill in voids, correct overlapping responsibilities, and address changes in conditions. As work proceeds, the contract administrator usually reviews invoices and certifies that the work billed for has been completed. Compliance with the adopted project schedule is a further duty of the Contract Administrator. While you as Library Director are not too apt to be directly involved, you should understand the basics of contract administration.

Before leaving this subject of contract administration, perhaps I should at least touch upon the payment of bills. As I have already noted, the contract administrator usually certifies that the invoices submitted represent work that has been completed and, therefore, the invoice is due and payable. Unfortunately, many agencies seem to be falling further and further in arrears in making payments - not a complaint, just a fact of life. Since team members may occasionally ask you for advice or intervention in the payment of overdue invoices, you should understand the applicable procedures used by your agency and the explanations for any delays. Facility project payments do not aways follow the same route through the bookkeeping maze of some agencies. You will want to check on this in your particular community.

D. EFFECTIVE USE OF PROJECT TEAM TIME

We have already touched on some aspects of client responsibility for dedicating appropriate quantities of time and energy to the project. A few more details may be helpful.

The project team has been selected, contracts are in place, a schedule has been adopted. Initial team meetings begin. You are an essential part of the team. In this role you will be a major factor in the effective use of project time. While the list of responsibilities will vary from project to project, here are a few reminders of ways you can increase team effectiveness:

1. Keep up to date by reading minutes of meetings, review comments, etc. upon receipt;

2. Review and react promptly to drawings and other materials when submitted;

3. Insist on punctual attendance at meetings;

4. Arrange your schedule so that you can attend every team meeting for its duration;

5. So far as possible, arrange your commitments to avoid interrupting team meetings with telephone calls;

6. Respond expediently to requests for additional information and/or checking of previously submitted data;

7. Continuously review drawings and specifications against the approved building program calling attention to deviations and making certain these are reconciled at the first opportunity;

8. Return telephone calls promptly;

9. If it is possible for you to attend a team meeting, notify team members as far in advance as possible so that the meeting can be rescheduled;

10. Involve essential staff only. Don't send staff to be observers or to substitute for one another - project team meetings are not staff training sessions;

11. If you do not understand a drawing, presentation or other item, say so immediately; otherwise your silence may pass as understanding and approval. (Finding out otherwise later on is disconcerting and may require revisions and delays that could have been avoided.)

12. Express your commitment to the project by your earnest personal participation.

E. LOCATION OF TEAM MEETINGS

If team meetings are to be held on your turf, as they often are, try to select an appropriate meeting place and make sure of its availability - getting shunted from one room to another during a team meeting is unsettling and a waste of time if it can be avoided. In locating a meeting room, remember that the architect will need a large table on which to roll out drawings. Wall space will be used for tacking up certain base drawings frequently referred to. The room should be reasonably quiet, free of unrelated traffic, and well lighted. If the meeting encompasses the noon hour, discuss likely luncheon arrangements in advance with team members. If a group luncheon is desired, select a restaurant reasonably close by which provides prompt service and food of a good quality. Know in advance who is going to pay the bill. Failure to do so can lead to some embarassing situations. Unless prior agreement has been reached, it's not fair to expect the design professionals to pick up the tab every time. All of this is nothing more than proper hospitality, I suppose. Yet, so often we find these mundane matters are not cared for. But if you are playing host, they are your responsibility.

F. TIMELY RESPONSE FOR INFORMATION AND REVIEW

I want to reiterate what I have said previously about the client's responsibility for responding promptly to requests for information, clarification and review of documents. This can not be overemphasized! Clients who seem to carry out most of their other responsibilities, often fail at this point. One of the reasons, perhaps, is that schedules which once seemed realistic, suddenly become inoperable for a variety of reasons. The client must provide as much advance notice as posssible when a deadline seems impractical. Oftentimes, minor adjustments can be made within the schedule to take care of special circumstances, especially if timely notice has been given. Just as you have every right to expect the consultants and design professionals to observe their schedules, so do they expect you to comply with the deadlines established during the course of the project.

Frustration is especially great when forced to wait longer than anticipated for the client to supply an essential piece of information or to review a particular document or submittal. Many clients seem surprised when such delayed reaction to a request or deadline results in a postponement of work. Yet, that is often unavoidable.

Particular consideration should be given by the client to the time required to review and return drawings and specifications. If unfamiliar with the procedures involved, the client should discuss this at the outset so as to better understand what is to be expected. For instance, you will probably want to allow time for both your personal review and for the review by key staff members of special areas. Seldom can this be done overnight. Better that an understanding of the time involved be reached early-on than for the project to suffer unexpected delays.

G. UNDERSTAND THE CONTRACT PROVISION

Take the provisions of consultant and design professionals' contracts seriously - they do. Understand exactly what they are to provide as part of their contracts and what they may charge as extras. While design professionals often interpret their contracts in a liberal manner, they cannot afford to provide every possible service or end product that the client may desire during the course of the project - at least not without reimbursement. Incidentally, understand also the formula for reimbursement and for such special services and any out-of-pocket expenses and know where such funds will come from and what limitations there may be on their use. Know also what procedures you must follow to obtain such special services. Contract limitations or exclusions may apply to such items as:

1. The number of copies of drawings, reports, etc. to be provided;

2. Number of meetings to be attended, trips to be made, etc.;

3. The preparation of renderings, mock-ups, models, photographs, etc.;

4. Special studies that exceed the normal requirements such as investigation, research and analysis of special requirements: life cycle costs, value engineering;

5. Special engineering or other consultants: acoustics lighting, materials handling, life safety;

6. Materials and systems testing.

These items, and others like them, should be fully discussed during contract negotiations and well understood by the client.

H. SAVE SOME MONEY FOR "EXTRAS"

It is almost impossible to forecast all project expenditures at the outset. However, many times during the course of a project, an unforseen need or unexpected opportunity will arise that merits funding. Fortunate, indeed, is the person who has funds that can be tapped for such expenditures. Here are just a few of the possible "extras" that may show up:

1. You may wish to have additional renderings made by the architect, perhaps of an entry or interior: most contracts include only one rendering;

2. While study models may be covered by contract, a finished or presentation model may be an extra;

3. During the course of design one or more elements may emerge which should be "mocked-up" for more thorough study, such as the entry area, circulation desk or special feature in the building;

4. Special assistance may be needed in a certain field - acoustics, materials handling, automation, or media, for instance;

5. If a fund raising campaign is planned in conjunction with the project, project-related promotional items may be needed.

Having money set aside for these exigencies - or a source available if needed - can be a great help and prevent unique opportunities from being lost. Consult with your project team members at the outset to establish a possible list of "contingency" items along with their costs.

I. STAFF PARTICIPATION

We have already alluded to staff participation in some of our previous remarks. As the client, you are responsible for involving staff at such times and in such ways as may promote the project's progress. This means a number of things:

1. Most clients feel more comfortable if one other staff member is authorized to sit in on all project meetings, review all submittals, etc. This has been invaluable when the primary client representative has for reasons of illness or other understandable causes, been unable to attend. However, be sure that the individual delegated this responsibility fully understands the role including authority to act in your absence. Often we have seen staff approve - or disapprove - portions of plans only to find that such action had to be ratified by someone else at a later time.

2. Key staff should be used as a resource to supply accurate and timely information. Usually they are more aware of details for their particular operations than the director. These individuals need to be kept up-to-date on the project's progress but normally participate in team meeting sessions only when their particular areas of interest and expertise are under discussion.

3. When needed, key staff should be readily available. This means that their schedules should permit them to be present for the necessary deliberations and that they should be free of interruptions to concentrate on the project requirements. In most cases this also means that they will have been briefed in advance on likely questions and will have had an opportunity to review pertinent planning documents. We flew more than 2,000 miles a few months ago in response to a client's frantic request that we make a special trip to review drawings for the library's technical services department. When we arrived we found the head of Technical Services had left on a scheduled vacation and her assistant had no knowledge of the plans. I can only guess what that meeting cost in terms of travel and fees for the team members - to say nothing of the confusion, delay and frustration that resulted. Enough said.

J. INTERNAL COMMUNICATIONS

One of the most difficult responsibilities to discharge is that of internal communications. At the beginning it seems deceptively simple. Everyone on the staff is awaiting word of progress on the project. Yet, before long the lines of communications seem to fray a bit. Lack of time is one of the reasons. (Fortunate is the Library with a PR person who can be delegated this responsibility.) Another frequent cause is the lack of an adequate vehicle for conveying information in a timely manner. An even more pervasive difficulty, perhaps, is deciding what can or should be told. Many items discussed during planning sessions, for instance, are speculative and cannot be interpreted as final decisions. Exciting ideas and concepts come and go as they are tested against the realities of design and budget. You dare not disseminate these in their formative stages. Remember that whatever you transmit to the staff is likely to become public information sooner or later - probably sooner. Many a director has been embarassed by having prematurely confided sensational ideas to staff members only to have them reappear in the press or elsewhere.

Anticipating this need for good communications the client should seek a desirable vehicle. For the small library this may consist simply of notes on the bulletin board summarizing status of the project and the future schedule. In larger libraries, we advocate a regular feature in the weekly staff newsletter or a special bulletin issued as needed and devoted entirely to the project. Whatever the vehicle, the client must accept the responsibility for maintaining communications with all concerned.

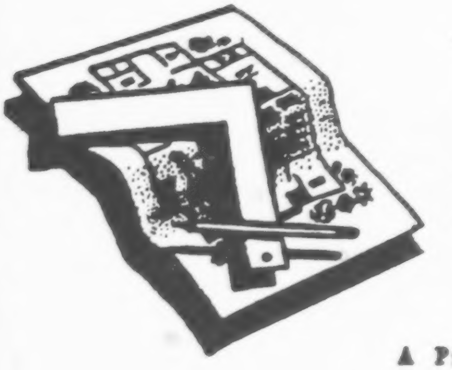
K. CONCLUSION

So, there are some of the responsibilities which the client must understand and address. There can be no question that they require dedicating time and effort. Few if any shortcuts exist. But, just as you expect your project consultants and design professionals to fulfill their responsibilities, so must you. We all work to the same end, a very smooth path to the successful completion of your facility project.

APPENDICES

APPENDIX 1

TALKING BUILDINGS WORKSHOP PROGRAM



TALKING BUILDINGS

A PRACTICAL DIALOGUE ON PROGRAMMING AND PLANNING LIBRARY BUILDINGS

TALKING BUILDINGS
A Practical Dialog on Programming and Planning
Library Buildings

Sponsored by: California State Library
Fiscal Agent: Metropolitan Cooperative Library System
Funded by Library Services and Construction Act, Title III

Pasadena Hilton Hotel: October 3-4, 1985
Oakland Hyatt Regency: October 7-8, 1985

PROGRAM

(First Day)

8:30-9:00	Registration
9:00-9:30	Let's Get Acquainted - Raymond M. Holt. Moderator Introductions Logistics Workshop Overview
9:30-10:30	Why's on First, and Who's on Second: Putting the Planning Team Together - Nancy McAdams, Consultant - Jane Light, Library Director
10:30-10:45	Refreshments
10:45-12:15	Getting to Know Them: Design Professionals - All You've Ever Wanted to Know - Bud Oringdulph, Architect - Marshall Brown, Interior Designer
12:15-1:30	Lunch (On your own; see restaurant list)
*1:30-2:45	Turning Needs into Space Requirements: The Needs Assessment Process - Nancy McAdams - Ray Holt

*Separate sessions for Academic and Public Libraries

2:45-3:00	Refreshments
3:00-4:15	A Menu for Building Programs - Ray Holt
4:15-5:00	In Response: The Faculty Answers Your Questions
5:00-7:00	Dinner (On your own)

(Evening)

7:00-9:00	A NIGHT TO REMEMBER! (Informal group sessions beginning at 7:00 and repeating at 8:00 p.m.)

1. Interior Planning for an Integrated Whole
   - Marshall Brown
2. Getting Staff Involved in the Programming and Planning Process
   - Jane Light
3. Hermit Crab Buildings: Living in Someone Else's Shell
   - Bud Oringdulph
4. Structuring the Academic Building Program
   - Nancy McAdams
5. Public Library Programming Nuts and Bolts
   - Ray Holt

(Second Day)

9:00-9:10	What's On Next - Ray Holt
9:10-10:15	Making It Happen: An Interior Design Case History - Marshall Brown
10:15-10:30	Refreshments
10:30-11:45	Finding Your Way Through Drawings & Specifications - Bud Oringdulph
11:45-1:00	Lunch (On Your Own)

*1:00-2:15	Converting Program to Costs and Costs to Funding Public Libraries: - Dave Sabsay, Director Sonoma County Library - Cy Silver, California State Library Consultant Academic Libraries: - Nancy McAdams

* Separate sessions for Academic and Public Libraries

2:15-2:45	Speaking of Responsibilites: You the Client - Ray Holt
2:45-3:15	Final Questions & Answers - The Faculty
3:15-3:25	What It Was All About
3:26	ADJOURNMENT TO FREEWAYS, AIRWAYS AND HOME

APPENDIX 2

THE WORKSHOP FACULTY AND WHO THEY ARE

Presented in Alphabetical Order

MARSHALL BROWN

A North Carolinian by birth, Marshall graduated from North Carolina State University with a degree in Architecture. He came to San Diego after a 14 month tour in Vietnam with the construction branch of the United States Navy (Seabees). With five years of experience as an architect including the role of project designer, he decided to concentrate on interior design. The result was the formation of the firm of MARSHALL BROWN - INTERIOR DESIGNER, INC., in 1971. This firm continues to receive many awards for quality of design and is often featured in professional magazines. The firm includes a staff of 17 with professional degrees . Marshall has been involved in a number of library projects including the Chula Vista Public Library which received the AIA-ALA award in 1978, and the Del Webb Memorial Library, Loma Linda University which has received regional AIA recognition.

RAYMOND M. HOLT

Following 3 years as Reference Librarian for the Fullerton Public Library and 20 years as City Librarian for the Pomona Public Library, Ray established the firm of Raymond M. Holt & Associates, Library Consultants. Based in Del Mar, the firm has been involved in numerous library building projects ranging from 3,000 square foot buildings to the 220,000 square foot addition to the structure housing the Public Library of Cincinnati and Hamilton County. Work has included projects in 14 states ranging from Alaska to Delaware and Washington D.C. Ray has participated in numerous library facility workshops in various states and at the national level. He is past chairperson of the Building and Equipment Section of LAMA and of several of its committees. In 1976 he chaired the BES Library Buildings Pre Conference in Chicago and, with Nancy McAdams, Co-chaired the 1979 Pre Conference in Austin.

JANE LIGHT

Jane Light has been director of the Redwood City Public Library since 1984. She was formerly assistant director at Redwood City following a stint as director of the Peninsula Library System. Earlier in her career Jane worked for CLASS and also directed the Peninsula Library System's Community Information project. Jane is president of the Public Library Association's Community Information Section. She has published a variety of articles about community information and referral services in libraries.

Currently, Jane is in the midst of planning Redwood City's much needed new 45,000 square foot library facility. It will retain and restore the City's Fire Department building facade, converting the whole into a contemporary public library building. Jane manages to balance her professional life with jogging, pursuing a passion for American folk music, and raising her two children.

NANCY R. MC ADAMS

Nancy R. McAdams is the President of the recently formed firm of McAdams Planning Consultants, Inc. of Austin Texas serving primarily academic institutions and architects engaged in planning academic and/or library facilities. Nancy holds degrees in both Library Science and Architecture. She is a registered architect in Texas. For more than nine years, Nancy was a member of the University of Austin Library staff including the post of Associate Director of General Libraries. She continued as a facilities planner for the University central administration for 5 years participating in the development of instructional and research facilities of all kinds including libraries. Nancy is a former member of the National Board of Directors for the AIA and served, as well, in various offices for the Texas Society of Architects. Activities in the American Library Association include past presidency of the Library Administration and Management Association and chair of LAMA's Buildings and Equipment Section and its committee on Buildings for College and University Libraries. She is well known as a speaker and panelist on programs concerning library buildings.

ROBERT E. (BUD) ORINGDULPH, FAIA

President and Design Director of the 60 member architectural firm BOOR/A (Broome, Oringdulph, O'Toole and Rudolf) of Portland Oregon, Bud has led his firm to receive regional and national recognition for excellence in architectural design. In 1982 he was named one of America's fifty most significant designers of major buildings by BUILDINGS JOURNAL. His work has been published widely in the architectural press. His skills and expertise in programming and design worksessions are directed toward stimulating a skillful exchange of information. He involves clients, user-groups, and special consultants to insure that the goals of a project are well-defined and appear in the final design. Bud's experience in library and research facilities include masterplanning design for medical, legal, higher education and public school buildings. Examples include a new

LRC building for the University of Alaska, Juneau, and the William Swindell Legal Research Library, Lewis and Clark College. He has participated in a variety of professional activities and recently concluded a term as President of the National Council Architectural Registration Boards. He is a Member, College of the Fellows of the American Institute of Architects.

DAVID SABSAY

David Sabsay has been the Director of the Sonoma County Library since 1965. Prior to that time he was City Librarian for the Santa Rosa Public Library having begun his career as Circulation Supervisor for the Richmond (CA) Public Library. David has served in various capacities for the North Bay Cooperative Library System including its coordinator, Chairperson of the Board of Directors and Fiscal Officer. In 1971 David was President of the California Library Association and has served on many of that organization's committees. Much of David's career has been spent in support of library legislative activities in Sacramento having served several terms as chairperson of the California Library Association's Government Relations Committee during the most crucial periods of legislative activity for libraries. He is recognized as an authority on library finance and management and has published a number of articles on this and related subjects. Dave also serves as an independent library consultant on public library governance, management and facility planning.

CY SILVER

Cy Silver is currently employed as one of the consultants for the California State Library. In this capacity he coordinates a number of programs including the Federal LSCA Title II program for library construction grants. He also coordinates the State Library's own construction projects including the Sutro Library in San Francisco and a proposed major new State Library facility in Sacramento. A native of Berkeley, Cy continues to reside there commuting daily to Sacramento. His library experience includes a variety of positions. He has worked in Public Services and Technical Processing at the Brooklyn Public Library, Long Beach Public Library and the Los Angeles County Law Library. Prior to his present role, Cy was responsible at the California State Library for the Law Library and for Library Development.

APPENDIX 3

TALKING BUILDINGS WORKSHOP REGISTRATION

Pasadena, October 3-4, 1985
Oakland, October 7-8, 1985

TALKING BUILDINGS WORKSHOP - PASADENA

Registration List

Adcock, Mark - Assistant to the City Manager - City of Orange
Adeniran, Dixie D. - Director - Ventura County Library Services
Anderson, Barbara - County Librarian - San Bernardino County
Ayala, John - Long Beach CC
Bareno, Laura - Supervising Librarian - San Diego County
Barnes, Bill - Campus Dean, Pacific Coast Campus - Long Beach CC
Baur, Pat - Member, Lib. Bd. of Trustees - Yorba Linda P.L.
Boeltl, E. Sue - Assist to the University Librn - CSU Fullerton
Burnett, Dr. Henry J. - Director, L.R. - College of the Desert
Cahill, John - Admin. Asst. - Carlsbad City Library
Campbell, Benita - Library Director - Marymount Palos Verdes Col.
Carroll, Richard - Associate Dean, Academic Programs - Long Beach CC
Castaneda, Patricia - Principal Librarian - Upland P.L.
Chou, Pei Hua - College Librarian - Cuyamaca College
Christopher, Sandra - Principal Lib. Coordinator - Burbank P.L.
Ciccatti, Dr. Samuel M. - President - Cuyamaca College
Clements, Roger - Asst. Director - Corona P.L.
Cobb, Karen Bosch - Assoc. County Librn. - Fresno County Library
Conner, Leola - Librarian - Newport Beach P.L.
Cuesta, Yolanda J. - Bureau Chief, Lib. Dev. Serv. Bureau - CSL
de la Cruz, Ernesto S. - Asst. Lib. Dir. - Oxnard P.L.
DeCaprio, Albert - Asst. County Librn. - San Bernardino County
Dee, Cynthia - Library Director - Corona P.L.
Dervias, Bettie - Lib. Admin. Serv. Manager - Anaheim P.L.
DeStefano, Sherley - President, Library Commission - Yorba Linda P.L.
Domney, James M. - City Librarian - Arcadia P.L.
Elmore, John - Admin. Officer - Ventura County Lib. Serv.
Ely, Byron - Building Official - City of Ontario
Engel, Sam - Admin. Asst. - Community Resources Dept. Covina
Ennerberg, Erik - Acquisitions Librn. - Cal Poly Pomona
Ettinger, Sharon - Board of Trustees - Whittier College
Fleischmann, Joe - Administrative Analyst - County of Riverside
Flint, David - Chief, Admin. Serv. - LACO
Gibbs, Ruth - Assoc. Univ. Librn. - UCLA Library
Gilson, Lyn - Corona Del Mar
Gollands, Toni - City Librarian - Sierra Madre P.L.
Greenberg, Rayma - Learning Resources Chair - L A Mission College
Grimes, Gloria - Asst. Dir. for Pub. Serv. - Palos Verdes Lib Distict
Harsen, Alan - Hd. Facilities Services - LACO
Hearth, Fred E. - Director of the Library - U of Redlands
Heyer, Robert - San Diego Mesa College
Heyer, Warren - San Diego Mesa College
Hollingsworth, Peter - Pres. Bd. of Lib. Trustees - Monterey Park
Irshay, Phyllis - Library Director - A.K. Smiley P.L.
Jarrett, Jim - Dir of Community Services - Downey City Hall
Jenkins, Victoria L. - City Librarian - Downey City Library
Jones, Rita - Sr. Librn. - Covina P.L.
Kacena, Carolyn - Assoc. University Librn. - CSU Fullerton

Kim, Joanne Y. - Director of Lib. Serv. - Pasadena C C
Kirby, Barbara L. - Library Director - El Segundo P.L.
Kresenski, Gene, AIA - Sr. VP/General Manager - Hope Consulting Group
Lange, Cliffor E. - Library Director - Carlsbad City Library
Larceval, Susan - Friends of the Library - San Diego County Library
Lau, Alberto, AIA - Architect - Hope Consulting Group
Lawrence, Joyce - Lib. Ad. Bd. Mbr. - Downey City Library
Leo, Karen - Library Director - Orange Public Library
Loomis, Barbara - Supervising Librarian - San Diego County Library
Lucas, Colin - City Librarian - Bruggemeyer, Monterey Park
MacDonald, Greg - Facilities Manager - Riverside City/County
MacKinnon, Mal - Project Engineer - Ventura County Public Works
Mannen, Frank - Assist. City Manager - City of Carlsbad
McGregor, Colleen - Library Director - Buena Park Library District
McSparren, Chris - Regional Administrator - Orange County P.L.
Milo, Albert J. - Asst. Director of Lib. Serv. - Commerce P.L.
Morgan, Ferrell - Hd of Public Services - Santa Ana P.L.
Murray, Barbara J. - County Librarian - Merced County Library
Nardini, Jim - V.P. - Charles Walton Associates AIA, Inc.
Nelson, Helen M. - Library Director - Oceanside P.L.
O'Brien, Philip M. - College Librarian - Whittier College
O'Neill, Nancy - Head of Adult Services - Santa Monica P.L.
Owens, Margaret Jean - Head of Extension Services - Santa Ana P.L.
Pacheco, Phyllis T. - Deputy Director - Kern County Library
Pearson, Waynnhall - City Librarian - Cerritos P.L.
Perkins, Dale W. - Library Director - San Luis Obispo City/County
Pierson, Steve - Librarian III - Kern County Library System
Pitluck, Donna Mae - Public Services Librn. - LA Mission College
Poole, Jay Martin - Asst. Univ. Librn. - UC Irvine
Ramsey, Jack - Director - Glendale P.L.
Reuben, Sandra - Chief Deputy Librn. - LACO
Richard, Rob - Library Director - Sacramento P.L.
Richards, Marcia - Lib Serv Dir - Burbank P.L.
Richardson, Molly - Asst. City Librn. - Santa Monica P.L.
Rothberg, Ryna - Asst. Lib. Dir. - Ontario City Library
Rowley, Virginia - Head Librarian - Santa Barbara City College
Sabelis, Virginia - Library Admin. Asst. - Oceanside P.L.
Schramm, Sharon - Pres., Lib. Bd. of Trustees - Carlsbad City Library
Smith, Bobbie - Coordinator of Libraries - Long Beach CC
Springer, Linda - Branch Services Admin. - Atlanta-Fulton P.L., GA
Tassios, Carolann - Director - Yorba Linda P.L.
Tema, William - District Librn. - Altadena Library District
Uebele, Dorothy - Director - Palos Verdes Library District
Velthoen, John - City Manager - City of Port Hueneme
Wadsworth, Dr. William - Academic Dean - Whittier College
Walthall, Harry - Head Librarian - College of the Desert
Walton, Charles - President, - CWA (architects)
Weddle, Georgia - Regional Administrator - Orange County P.L.
Wilson, Linda - Supervising Librarian - San Diego County
Wood, Lilnda - Library Director - Riverside City/County
Workman, William - Assistant City Manager - City of Oceanside
Yao, Linda - Library Director - Upland P.L.

TALKING BUILDINGS WORKSHOP - OAKLAND

Registration List

Amend, John - Library Consultant - Cal State Library
Amrhein, John K. - Director - CSU Stanislaus
Architect - Placer County
Atherton, Victoria - Supervising Librn. Mountain View P.L.
Atkins, Gregg - Coordinator for Lib. Serv. - College of San Mateo
Bender-Lamb, Sylvia - Librarian - U of the Pacific
Bergsing, Patricia M. - City Librarian - Burlingame P.L.
Birkel, Paul E. - Dean of the U Lib. - U of San Francisco
Brooks, Robin - Library Trustee - Santa Cruz P.L.
Brown, Jeanne - Library Trustee - Benicia P.L.
Card, Wayne - Associate Architect - City of Stockton
Crisp, Carlene G. - Branch Librarian - Roseville Library
Crouch, Marilyn - Asst. Lib. Director - Roseville P.L.
Davenport, Diane - Supervising Program Librn. - Berkeley P.L.
Davis, Ronnie - Branch Manager - Albany Lib. - Alameda Co
Deadrich-Rogers, Dianne - County Librarian - Alpine County
Drury, Don - Director of Libraries - Menlo School & College
Dunbar, Helen - Principal Librarian - Alameda County
Elgin, Susan - Public Serv. Librn. - Santa Cruz P.L.
Engel, Jannette - Deputy County Librarian - San Mateo County
Escoffier, Alfred H. - Asst. Librn. - Burlingame P.L.
Esteves, Roberto - Director, Special Media Serv. - San Francisco
Firestein, Susan - City Librarian - Benicia P.L.
Fischer, Russell C. - Director of Libraries - San Jose City Col
Foster, Colleen - Coordinator of Br. Serv. - Stockton-San Joaquin
Frederickson, Karen - City Librarian - Menlo Park P.L.
Gater, Dolores - Asst. Chief, Main Library - San Francisco P.L.
Gerhardt, Steve - Asso Dean of Lib/Learn. Serv. - West Hill Com.
Gilbert, Luanne - Deputy County Librn. - Alameda County Library
Gold, Anne Marie - Coordinator of Lib Br. - Solano County Library
Golden, Ann - Library Director - San Anselmo P.L.
Gomez, Virtudes - Hd. of Collect., Central Lib. - Sacramento P.L.
Grant, Susan - Admin. Aide. - County of Yolo
Gray, Darlene - Yuba College, Woodland
Hafter, Ruth - Library Director - Sonoma State U
Hammer, Sharon - County Librn. - Marin County Free Lib.
Hastings, Dick - County Librn. - Tuolumne County Lib.
Helfand, Esther - Asst. County Librn. - Contra Costa County
Helling, Madelyn - Nevada County Librarian
Helmick, Kathryn - Supervising Librn. - Oakland P.L.
Hodina, Carolyn - Librn III - Tulare County Library
Howlett, Diane - Saint Mary's College
Hunt, Amoes - Branch Librarian - Stockton-San Joaquin Co.
Jansen, Kathleen M. - County Librarian - Lake County
Kan, Sarah - Dean of Inst. Resources - City College of San Franc.
Kellum-Rose, Nancy - Library Services Director - Woodland P.L.
Kelly, Cheryle - Admin. Asst. - Madera County
Kohn, Marjorie - Supervising Librn. - Mountain View P.L.

Kottage, John - Public Works Director - San Anselmo
Kozak-Budd, Sylvia - Branch Librn., Fort Bragg - Mendocino Co.
Kristie, William - Soc. Sci Ref.Librn. - CSU Sacramento
Landers, Alison - Vacaville Branch Librn. - Solano County
Larson, Janet - Deputy Lib. Dir., Pub. Serv. - Sacramento P.L.
Larzelere, Dorothy - Mbr, New Lib Build Comm. - Alameda Free Lib.
Lathrop, Jeannine - Coord. Lib. Sup. Serv. - CSU Sacramento
Lee, Aldora - Lib Commissioner - Menlo Park P.L.
Lemberg, Brother W. Richard FSC - Asst. Dir. - Saint Mary's Col.
Leschander, Len - Adm. Svcs, Asst. I - Marin County Free Lib
Lewis, Brian G. - County Librn. - Tulare County Library
Lewis, Nancy - County Librn - San Mateo County Lib
Lines, Adelia - Head, General Ref. Dept. - San Francisco P.L.
Logan, Gordon - Deputy County Admin. Officer - County of Mendocino
Lucas, Linda - Asst Dean of Inst., LR - Chabot College, Valley
Martin, Ann F. - City Librarian - Paso Robles P.L.
Matteucci, Emily - Asst Librn. - U.S. Court of Appeals, 9th Cir.
McGowan, Peg - Library Director - Alameda Free Library
McHenry, Craig - Sierra County
McNamee, Alice - Asst. County Librarian - Marin County Free Lib.
Minudri, Regina U. - Director of Lib. Serv. - Berkeley P.L.
Morrison, Bobbie - Adult Serv. Librn. - Pacific Grove P.L.
Nelson, John - Architectural Consultant - Alameda Free Library
Ouye, Kathleen - Oakland P.L.
Ozubko, Susan - Supervising Librn. - Mountain View P.L.
Partridge, Phyllis, Super. Librn. - Berkeley P.L.
Prideaux, Jerome - Admin. Serv. Officer - Contra Costa County
Ramirez, William - Chief, Main Library - San Francisco P.L.
Richardson, Ronald - Admin. Oper. Anaylst III - CSU Sacramento
Riehl, Sallie K. - County Librarian - Madera County Library
Sallee, Tom - President - Friends of the Davis P.L.
Sanborn, Dorothy C. - County Librarian - Auburn-Placer County
Satterford, Teri - Business Manager - San Mateo County Library
Schleifer, Harold B. - Director, U. Lib.- Cal Poly Pomona
Scholand, Julia - Librarian - City College of San Francisco
Semrau, Jeannine - Librarian - Marin County Free Library
Shaw, George W. - Dir.of Planning/Arch.- San Francisco Com Col Dis
Shelby, Marjorie - Public Library Consultant - Idaho State Library
Shivers, Marian - Yuba College, Woodland
Stampfli, Royden - Stanford University
Starr, Carol - Branch manager - Alameda County Library System
Stephens, Mary L. - County Librarian - Yolo County Library
Stilwell, Ruth - Library Director - Mountain View Public Library
Sullivan, June - Chowchilla Branch Librn. - Madera County Library
Sullivan, Marguerite - Hd.Pub.Serv.-Central Lib. - Sacramento P.L.
Sun, Cossette T. - Law Library Director - Alameda County Law Lib.
Svee, Beth - City Librn. - San Bruno Public Library
Sypherd, Francis - Lassen Co. Free
Vaaler, Nan Stormont - Library Director - Napa City-County Lib.
Vander Sluis, Glenn - Project Architect - Menlo Park Public Lib.
Wagoner, Ora M. - Librarian - U.S. Naval Postgraduate School
Wentland, Erna - Lib. Dir.- Clovis-Carver P.L. (New Mexico)
White, Lelia - Director of Library Services - Oakland P.L.
White, Robert L. - Asst. U Librn - UC Santa Cruz
Woods, Gertrude - Pres. Lib. Bd. of Trustees - Alameda Free Lib

APPENDIX 4

A BASIC BIBLIOGRAPHY ON LIBRARY BUILDINGS

Prepared by Raymond M. Holt
Raymond M. Holt & Associates, Library Consultants
Del Mar, California

A BASIC BIBLIOGRAPHY ON LIBRARY BUILDINGS

Prepared by:

Raymond M. Holt, Library Consultant

The literature on library buildings includes a variety of books, magazines and other sources. In addition to the titles most frequently referred to, current information must be sought through guides to periodical literature. The citations below consist of a sampling and are not presented as a comprehensive listing. While some of the titles are rapidly becoming out-of-date, they still contain basic information; new publications are also imminent. While concentrating on library oriented publications, the list includes a smattering of other titles which should also be familiar to anyone involved with a buildings project. Further guidance may be provided by consultation with the Library Development Services Office of the California State Library.

GENERAL MATERIALS FOR PLANNING, PROGRAMMING AND MANAGING THE LIBRARY BUILDING PROJECT

Cohen, Aaron and Elaine Cohen, Designing and Space Planning for Libraries, New York, Bowker, 1979.

Dahlgren, Anders, Planning the Small Public Library Building, (Small Libraries Publication - No. 11), Chicago, American Library Association, 1985.

Holt, Raymond M., Wisconsin Library Buildings Project Handbook. Madison, Wisconsin, Wisconsin Department of Public Instruction, 1978.

Lushington, Nolan and Willis N. Millis, Jr., Libraries Designed for Users, Hamden, Conn., Library Professional Publications, 1980.

Mason, Ellsworth, Mason on Library Buildings, Metuchen, N.J., Scarecrow Press, 1980.

Metcalf, Keyes D., Planning Academic and Research Library Buildings, New York, R.R. Bowker Co., 1966.

Myller, Rolf, The Design of the Small Public Library, New York, R.R. Bowker Co., 1966.

Nyren, Karl, ed., L.J. SPECIAL REPORT #1: Library Space Planning, New York, Bowker, 1976.

_____, L.J. Special Report #8: New Public Library Buildings, New York, Bowker, 1979.

_____, L.J. Special Report 15: To Grow Or Not To Grow? New York, Bowker.

_____, L.J. Special Report #16: New Academic Buildings, New York, Bowker.

_____, L.J. Special Report #23: New Academic Buildings/II, New York, Bowker.

_____, L.J. Special report #25: New Public Buildings/III, New York, Bowker, 1983.

Schell, Hal B. ed., Reader on the Library Building, Washington, D.C., Microcard Editions Books, 1975.

Wheeler, Joseph L. and Alfred Githens, The American Public Library Building, Charles Scribner's Sons, 1941.

The foregoing titles contain material ranging from general information to specific guidelines on planning, programming and managing the library building project. They vary widely in content but form a basic reference collection for those contemplating or engaged in a library building project whether it is a remodel, addition, new construction or adaption.

The Metcalf text, though for academic libraries, is by far the most thorough treatise presently available on library buildings. It is a very useful source of information, regardless of the size or type of building project. Rolf Myller's work is brief but helpful, especially as a point of departure. Although very much out of date, the Wheeler-Githens opus is still frequently cited.

BUILDING CODE

Uniform Building Code, 1982 ed., Whittier, California, International Conference of Building Officials, 1982.

Construction in California is regulated by the provisions of the Uniform Building Code except as modified by the governing jurisdiction. The UBC, as it is normally referred to, is an important reference tool used by architects, engineers and local building officials responsible for its enforcement. New editions are published approximately every three years and go into effect as soon as they are officially adopted by the local jurisdiction.

INTERIOR DESIGN, FURNITURE AND EQUIPMENT

Draper, James and James Brooks, Interior Design for Libraries, Chicago, American Library Association, 1979.

Gueft, Olga, "Perfectly Orchestrated Civic Core," Interiors, Vol. 89, No. 5, (December, 1976), pp. 60-63.

Klein, Judy Graf, The Office Book: Ideas and Designs for Contemporary Work Spaces, New York, Facts on File, 1982.

Pollet, Dorothy and Peter C. Haskell, Sign Systems for Libraries, New York, Bowker, 1979.

(see also the following titles listed under the heading INSTITUTE PROCEEDINGS in this bibliography.)

Guidelines for Library Planners.

The Library Enviornment: Aspects of Interior Planning.

Library Furniture and Equipment.

The Procurement of Library Furnishings: Specifications, Bid Documents, and Evaluation.

Magazines:

Interior Design, New York (monthly)
Interiors, New York: Billboard Publications (monthly)

The foregoing citations concerning Interior Design, Furniture and Equipment are in addition to the treatment of this subject found in the books listed under the "General Materials..." in this bibliography.

THE CONSULTANT AND PROJECT TEAM

The Library Building Consultant, Role and Responsibility. Edited by Ernest R. DeProspo. New Brunswick, N.J., Rutgers University Press, 1969.

"The Role of the Building-Planning Team." *Library Buildings: Innovations for Changing Needs*. Chicago, American Library Association, 1972.

Numerous articles in the proceedings of library building institutes and in library literature pertain to the role of the library building consultant.

SECURITY

Protection of Library Collections, 1976. (NFPA No. 910) Boston, National Fire Protection Association, 1976.

Hopf, Peter S., ed., *Designers' Handbook of Building Security*, McGraw-Hill Book Co., 1978.

Reber, Jan R., *Manual on Library Security*, New York, The Haworth Press, 1978.

Library & Archival Security, New York, The Haworth Press, (Quarterly).

Security of people, collections, equipment and facilities is an important but often overlooked aspect of library building projects. The foregoing citations should create an awareness of the subject and alert the members of the project team to explore the ramifications. Arson, vandalism, theft of materials and various life-threatening situations are encountered with increasing frequency by libraries of all types. Here the "ounce of protection" adage has special relevance for the building project.

SITE SELECTION

"A Public Library Site Symposium" edited by Hoyt Galvin, *Library Space Planning*, (LJ Special Report #1) New York, R.R. Bowker Co., 1976.

Rohlf, Robert H. and David R. Smith, "Public Library Site Selection," *Public Libraries*, Vol. 24, No. 2, Summer, 1985. pp. 47-49.

"Site Selection," *Library Buildings: Innovation for Changing Needs*, Chicago, American Library Association, 1972. pp. 152-163.

Wheeler, Joseph L., *The Effective Location of Public Library Buildings*, (Occasional Papers No. 85) Urbana, University of Illinois Graduate School of Library Science, 1958.

_____, *A Reconsideration of the Strategic Location of Public Library Buildings*, (Occasional Papers No. 85) Urbana, University of Illnois Graduate School of Library Science, 1967.

The major work on locating public library buildings was done by Joseph L. Wheeler. More recent experience is reported in articles such as those noted above and in items which can be located through *Library Literature*.

ADDITIONAL SOURCES OF INFORMATION

INSTITUTE PROCEEDINGS

The following items are citations for the various proceedings of institutes conducted by the Buildings and Equipment Section of the Library Administration and Management Association (formerly Library Administration Division) of the American Library Association. They are presented in alphabetical order by title.

An Architectural Strategy for Change: Remodeling and Expanding for Contemporary Public Library Needs, Edited by Raymond M. Holt, Chicago, American Library Association, 1976.

Guidelines for Library Planners, Edited by Keith Doms and Howard Rovelstad, Chicago, American Library Association, 1960.

Libraries: Building for the Future, Edited by Robert J. Shaw, Chicago, American Library Association, 1967.

Library Buildings: Innovation for Changing Needs, Edited by Alphonse F. Trezza, Chicago, American Library Association, 1972.

Library Environment: Aspects of Interior Planning, Edited by Frazer G. Poole, Chicago, American Library Association, 1965.

Library Furniture and Equipment, Chicago, American Library Association, 1963.

Planning Library Buildings for Service, Edited by Harold Roth, Chicago, American Library Association, 1964.

Problems in Planning Library Facilities: Consultants, Architects, Plans and Critiques, Edited by William A. Katz and Roderick G. Swartz, Chicago, American Library Association, 1964.

The Procurement of Library Furnishings: Specification: Bid Documents and Evaluations, Edited by Alphonze F. Trezza and Frazer G. Poole, Chicago, American Library Association, 1969, 150 pp.

Running Out of Space-What are the Alternatives?, Edited by Gloria Novak, American Library Association, 1978.

BLUEPRINT READING

Bellis, Herbert F. and Walter A. Schmidt, *Blueprint Reading for the Construction Trades*, 2nd ed., New York, McGraw, 1978.

Hornung, William J., *Blueprint Reading: Interpretation of Architectural Working Drawings*, Englewood Cliffs, New Jersey, Prentice-Hall, 1961.

Huth, Mark W., *Basic Construction Blueprint Reading*, New York, Van Nostrand, 1980.

Palmquist, Roland, *Answers on Blueprint Reading*, New York, T. Audel, 1977.

Wallach, Paul I. and Donald Helper. *Reading Construction Drawings*, New York, McGraw, 1979.

The above titles merely suggest a few of the many books written to assist those wishing to learn to read architectural drawings with some proficiency. Your architect and/or consultant can no doubt suggest others. Most libraries have one or more titles on this subject in their collections. The Hornung title noted above even has segments containing a few drawings of a small library building project as illustrations.

ANNUALS

"Buildings," The ALA Yearbook,....., Chicago, American Library Association.

"Public Library Building," *The Bowker Annual of Library & Book Trade Information*, New York, R.R. Bowker Co.

PERIODICALS

Library Journal (December 1 issue usually features library buildings with statistical data repeated in the *Bowker Annual*.)

Architectural Record, McGraw-Hill Publication (Monthly).

Progressive Architecture, Penton/IPC Reinhold Publications (Monthly)

APPENDIX 5

BIBLIOGRAPHY ON NEW LIBRARY BUILDINGS, ARCHITECTURAL ADAPTATIONS, REMODELINGS AND REHABILITATION FOR LIBRARIES

Prepared by Robert E. (Bud) Oringdulph, FAIA
BOOR/A: Architects, Planning, Interior Design
Portland, Oregon

ARTICLES ON ARCHITECTURAL ADAPTATIONS, REMODELINGS AND REHABILITATION FOR LIBRARIES

"A library for the future" (re: conversions). LIBRARY JOURNAL, Dec. 1984, p. 2219-2220.

"Remodeling reintroduces deco to a Chicago museum's interior" (Museum of Science & Industry Kresge Library), ARCHITECTURE: THE JOURNAL OF THE A.I.A., Nov. 1984, p. 84.

"Mansion-like library redone, expanded underground" (Peabody Institute Library), ARCHITECTURE, Nov. 1984, p. 86-87.

"Designing for rare books" (M. Knoedler & co. art reference library), INTERIORS, Mar. 1984, p. 138-139.

"Martha Sowell Utley Memorial Library and Cultural Center, Thobodaux, La." (transformed brick market and warehouse), PROGRESSIVE ARCHITECTURE, Nov. 1983, p. 56

"Rejuvenation for the grand dowager" (New York City library), ARCHITECTURAL RECORD, Aug. 1983, p. 75-79.

"Metamorphosis of loft into library" (New York Univ.Grad.Bus.Sch.), ARCHITECTURAL RECORD, Aug. 1983, p. 80-83.

"Renovation of the Keio University Library", JAPAN ARCHITECT, March 1983, p. 32-36.

"Adaptive re-use winner" (Stanford University Special Collections library), INTERIORS, Jan. 1983, p. 104.

"Chicago Public Library: magnificent pragmatism", PROGRESSIVE ARCHITECTURE, Mar. 1982, p. 23-24.

"University library, Eichstatt, West Germany", ARCHITECTURAL REVIEW, Mar. 1982, p. 62-67.

"Solar oriented library; recycling a 1926 brick garage....", INTERIORS, Oct. 1980, p. 83-84.

"The Yale Law School library...." (remodeled),ARCHITECTURAL RECORD, July 1979, p. 111-114.

"Restoring a library and expanding its uses" (Chicago Public Library), AIA JOURNAL, Mid-May 1979, p. 192-193.
(See also ARCHITECTURAL RECORD, Jan. 1979, p. 96-99.)

"University library remodelling & expansion" (Univ. of Houston), CONTRACT INTERIORS, Sept. 1978, p. 92-95.

"The New York University Institute of Fine Arts: How Do You Re-use a Jewel Box ?" ARCHITECTURAL RECORD, Aug. 1978, p. 107-112.

ARTICLES ON NEW ARCHITECTURAL ADDITIONS FOR LIBRARIES

"University of Berlin" (addition) ARCHITECTURAL REVIEW, Sept. 1984, p. 109-111.

"A variety of libraries" (adaptations and new); five small libraries), ARCHITECTURAL RECORD March 1985, pp. 101-113.

"Institutional design: Shakespeare drama" (Folger library, Washington, D.C.), INTERIORS Jan. 1984, p. 145-146.

"A new frontispiece transforms a college library" (Colgate University), ARCHITECTURAL RECORD,Sept. 1982, p. 120-125.

"Vigorous forms and vibrant colors enrich...St. Lawrence University", ARCHITECTURAL RECORD, Oct. 1980, p. 65-71.

"Design for readers" (Williams College), ARCHITECTURAL RECORD, July 1978, p. 89-93.

"Beneath the halls of ivy" (Avery Library extension, Columbia University), PROGRESSIVE ARCHITECTURE, Mar. 1978, p. 60-61.

ARTICLES ON NEW LIBRARY STRUCTURES

"Designing tomorrow's libraries", by Carlton C. Rochell, ARCHITECTURAL RECORD, Aug. 1983, p. 91.

"A variety of libraries", ARCHITECTURAL RECORD, Mar. 1985, p. 101-113, discusses five small libraries, new, added-on, and adapted.

"Missionary Graves: Library San Juan Capistrano...Architect Michael Graves", ARCHITECTURAL REVIEW, Oct. 1984, p. 52-57.

"Ex libris: Regional library, San Juan Capistrano", PROGRESSIVE ARCHITECTURE June 1984, p. 69-79.

"Mission Imagery, Introverted Spaces. San Juan Capistrano library." ARCHITECTURE: THE JOURNAL OF THE A.I.A., May 1984, p. 258-267.

"Solid library in a self-consciously nostalgic village" (Unionville), ARCHITECTURE, Sept. 1984, p. 150-153.

"Unionville Library, Town of Markham, Ontario. Barton Myers Associates, Architects", ARCHITECTURAL RECORD, Feb. 1983, p. 96-97.

"Akita Municipal library", JAPAN ARCHITECT, Mar. 1984, p. 26-36.

"A rare and rich response to context" (Keio University library, Tokyo), ARCHITECTURAL RECORD, May 1983, p. 106-113.

"New library for the Keio University", JAPAN ARCHITECT, Mar. 1983, p. 23-31.

"A sensitive storehouse for burgeoning knowledge"(Mudd Library, Yale University), ARCHITECTURAL RECORD, Aug. 1983, p. 86-90.

"Daylighting: Six Aalto libraries", AIA JOURNAL, June 1983,p. 58-69.

"Aalto's luminous library in Oregon", AIA JOURNAL, Sept.1980,p.72-73.

"Erskine's humanism" (University of Stockholm library), ARCHITECTURAL REVIEW, Aug. 1983, p. 16-25.

"Suginami Ward Central Library", JAPAN ARCHITECT,Apr.1983,p. 7-14.

"Kanazawa Institute of Technology Library Center", JAPAN ARCHITECT, Jan. 1983, p. 7-18.

"Community catalyst" (Markham library), INTERIOR DESIGN, Aug. 1982, p. 186-189.

"Sculptural shapes that sit solidly on the ground" (Gettysburg College Library), AIA JOURNAL, Mid-May 1982, p. 176-182.

208

ARTICLES ON NEW LIBRARY STRUCTURES (cont.)

"Architecture beneath the surface" (Univ. of Michigan Law School library), ARCHITECTURAL RECORD, March 1982, p. 77-84.

"A dramatic step for a fledgling library" (Billerica, Mass.), ARCHITECTURAL RECORD, Aug. 1983, p. 84-85.

"Mt. Airy library" (passive solar), PROGRESSIVE ARCHITECTURE, April 1983, p. 111-113.

Municipal library, Anchorage, Alaska, by Gunnar Birkerts. See ARCHITECTURAL RECORD, March 1983, p. 108-109.

"Lake County Public library" INTERIOR DESIGN Oct. 1982,p. 216-221.

"Marcel Breuer and Hamilton Smith's library for Atlanta: a strong new urban presence", ARCHITECTURAL RECORD, Mar. 1981, p. 83-87.

"Birkert's library for Duluth", ARCHITECTURAL RECORD, Nov. 1980, p. 86-91.

"Kanazawa Municipal Library", JAPAN ARCHITECT, Jan. 1980,p.21-28.

"Princeton library with a glowing sculptured ceiling", AIA JOURNAL, Sept. 1979, p. 82-83.

"Yugawara Public Library", JAPAN ARCHITECT, Sept. 1979,p. 67-72.

"Scharoun's Staatsbibliothek" (Berlin), ARCHITECTURAL REVIEW, June 1979, p. 331-341.

SOURCES ON PLANNING, ADAPTIVE USE, ETC.

Palmour, Vernon E.; Belassi, Marcia C.; and DeWath, Nancy V.
A planning process for public libraries. Public Library Assn./Amer. Libr. Assn., 1980.

Cohen, Aaron and Elaine.
Designing and space planning for libraries; a behavioral guide. Bowker, 1979.

Metcalf, Keyes D.
Planning academic and research library buildings. McGraw-Hill, 1965.

Mount, Ellis, ed.
Planning the special library; a project of the New York Chapter, S.L.A. New York, SLA monograph no. 4, 1972.

Price, Paxton P., ed.
Future of the main urban library. Report of a conference in Chicago at the Chicago Public Library, Oct. 26-27, 1978. La Cruces, N.M., Urban Libraries Council, 1978.

Sager, Donald J.
Managing the public library. White Plains, N.Y., Knowledge Industry Publications Inc., 1984.
(Chapter 9, "Construction, Design and Maintenance", p. 211-230.)

Thompson, Godfrey.
Planning and design of library buildings. 2d ed. Architectural Press, 1978.

Matthews, Joseph R.
Choosing an automated system; a planning guide. ALA, 1980.

Weihs, Jean.
Accessible storage of nonbook materials. Illus. by Cameron Riddle. Oryx press, 1984.

Swartzburg, Susan G.
Conservation in the library; a handbook of use and care of traditional and nontraditional materials. Greenwood press, 1983.
(Touches on structures,and housing of materials.)

Bahr, Alice H.
Book theft and library security systems, 1981-82. White Plains, N.Y., Knowledge Industry Publications Inc., 1982.

Brand, Marvine, ed.
Security for libraries. ALA, 1984.

SOURCES ON PLANNING, ADAPTIVE USE, ETC. (Cont.)

American Standards Assn.
American Standards specifications for making buildings and facilities accessible to, and usable by, the physically handicapped.

Harkness, Sarah P., and Groom, James N.
Building without barriers for the disabled. Watson-Guptill, 1976.

National Library Service for the Blind and Physically Handicapped.
Planning barrier free libraries; a guide for renovation and construction of libraries serving blind and physically handicapped readers. 1981.

Strom, Maryalls G., *ed*.
Library services to the blind and physically handicapped. Scarecrow Press, 1977.
(Pp. 159-178 re: architectural and barrier-free considerations.)

"Illinois Regional Library for the Blind and Physically Handicapped" (Chicago), ARCHITECTURAL REVIEW, Oct. 1977, p. 245.

"Serious purpose adorned by color", AIA JOURNAL, Mid-May 1982, p. 221-224.

"Fanciful and functional" (Illinois Regional Library for the Blind and Physically Handicapped) PROGRESSIVE ARCHITECTURE, April 1978, p. 76-81.

APPENDIX 6

BIBLIOGRAPHY FOR LIBRARY PLANNERS

Prepared by Nancy McAdams
McAdams Planning Consultants, Inc.
Austin, Texas

FROM THE LIBRARY PRESS:

Association of College and Research Libraries, College Library Standards Committee. "Standards for college libraries, 1985." College and Research Libraries News, May 1985 (vol. 26, no.5), 241-252.

Draft of the latest revision of the "standards" for determining the sizes of college library staffs, collections and facilities. Formula C for library space significantly changed.

Association of Research Libraries, Office of Management Studies, Systems and Procedures Exchange Center. Building renovation in ARL Libaries: Kit 97. Washington, ARL, September 1983.

Examples of various planning documents from six academic libraries, including a relatively typical building program.

Boll, John J. To grow or not to grow? (LJ Special Report #15). New York, Bowker, 1980.

A compact review of the alternatives for collection growth and storage, with a comprehensive bibliography.

Fraley, Ruth A. and Carol Lee Anderson. Library space planning: How to assess, allocate and reorganize collections, resources and physical facilities. New York, Neal-Schuman, 1985.

Helpful to the novice planner to get started on dealing with change and coping in the meantime.

NOT FROM THE LIBRARY PRESS:

Deasy, C.M. Designing places for people: a handbook on human behavior for architects, designers and facilities managers. New York, Whitney, 1985.

Overview of the psychology of "personal space" in layman's language, with good graphics. Brief library chapter emphasizes wayfinding and territoriality.

Evans, Benjamin H. Daylight in architecture. New York, McGraw-Hill, 1981.

Good explanation for the layman, using drawings and photographs effectively.

Jellinger, Thomas C. Construction contract documents and specifications. Reading, Mass., Addison-Wesley, 1981.

Intended for the architecture student, but useful for clients to understand the construction drawings, specs and contracts.

Pena, William with William Caudill and John Focke. Problem seeking: an archtectural programming primer. Boston, Cahners, 1977.

Helps library clients understand the relationship between their kind of building program (words and numbers) and the archtect's kind of programming (graphic analysis).

Pulgram, William L. *Designing the automated office.* New York, Whitney, 1984.

New enough for credibility. Very effective coverage of lighting, acoustics, task analysis, product evaluation, project management.

Wang, Thomas C. *Plan and section drawing.* New York, Van Nostrand Reinhold, 1979.

Another for the architecture student, helpful to get clients accustomed to the graphic techniques of design presentations, especially concept sketches.

White, Ken. *Bookstore planning and design.* New York, McGraw-Hill, 1982.

How to make books look terrific, even government publications!

SUGGESTED JOURNALS FOR FACILITY PLANNERS AND MANAGERS

Contract: the Business magazine of commercial furnishings and interior architecture. New York, Gralla Publications.

Monthly. Annual subscription rate $14.00 to qualified subscribers; i.e., "firms and individuals who specify, design, buy or replace contract furnishings." Circulation Department, Room 930, 1501 Broadway, New York, NY 10036.
Emphasis on products.

Corporate design and reality: facility design, planning and asset management. New York, Cahners Publishing Co.

10 issues per year. Free to qualified subscribers. Annual subscription rate $35.00 for non-qualified individuals. Circulation inquiries to Corporate Design and Realty, P.O. Box 17240, Denver, CO 80217.
Emphasis on asset management. Frequent coverage of technology, productivity, facility cost benefits.

Designers west: Public, corporate and residential spaces. Los Angeles, Arts Alliance Corporation.

Monthly, plus annual resource directory. Annual subscription rate $30.00. Circulation inquiries to Designer's West, P.O. Box 48968, Los Angeles, CA 90048-9168.
Emphasis on style and trends. Useful for its coverage of regional designers and product sources.

Facilities design and management: for corporate executives, managers and planners of office environments. New York, Gralla Publications.

Monthly. Free to "individuals actively engaged in office facilities planning and design for their corporations". Annual subscription rate $30.00 for non-qualififed individuals. Circulation address same as for Contract.
Emphasis on facility management. Helpful coverage of building technology issues and product developments for non-designers. Promotes the emerging profession of facility management.

Interiors: for the contract design industry. New York, Bilboard Publications, Inc.

Monthly. Annual subscription rate $26.00. Subscription information from P.O. Box 1414, Riverton, N.J. 08077. Available on microfilm and fiche from University Microfilms.
Emphasis on design and designers.

APPENDIX 7

SELECTING DESIGN PROFESSIONALS; SAMPLE MATERIALS

Prepared by Raymond M. Holt, Library Consultant
Raymond M. Holt & Associates, Library Consultants
Del Mar, California

Item 7-A: Letter of Interest (Invitation) or Request for Qualifications (RFQ)

Item 7-B: Request for Proposal for Library Consultant

Item 7-C: Request for Proposal (RFP) for Design Professionals

Item 7-D: Questionnaire to Accompany RFP to Design Professionals (Representative Questions)

Item 7-E: Questionnaire for Interior Design Firms

Item 7-F: Suggested Interview Questions

Item 7-G: Suggested Telephone Reference Check Form

ITEM 7-A

LETTER OF INTEREST (SAMPLE)

Date

Dear Sirs:

The (Agency Name) is currently soliciting letters of interest from design professionals interested in the design of a new central library building of approximately 40,000 square feet.

Details of the project are provided on the attached sheet. If your firm is interested, please submit your qualifications and list of references.

Following a review of the responses to this letter the (Agency Name) will issue a Request for Proposal to those firms it deems best qualified. Evaluation of those Proposal responses will then result in the selection of approximately five firms to be interviewed.

If your firm wishes consideration, please respond by ______________________________. For technical questions and further information please contact the undesigned. Thank you.

(Signed)

[Note: Attach to the above letter a detailed description of the proposed project providing information on size, budget, schedule and any other known details.]

Item 7-B

REQUEST FOR PROPOSAL FOR LIBRARY BUILDING CONSULTANT

(Sample)

Dear_________________

The (name of Agency) is interested in securing the assistance of a qualified Library Building Consultant to assist in the programming and planning of a new central library facility. Attached is a description of the proposed project.

The scope of work will include the following:

1. Evaluate space projections functional relationships and other building information already assembled by the Library Staff;

2. Prepare a written building program statement providing detailed information on space requirements,adjacencies, and other project requirements for use by the architect and interior designer;

3. Provide assistance in the selection of design professionals;

4. Participate in project team meetings;

5. Provide written reviews of architectural and interior design drawings and specifications at the following phases:

    a. Schematics

    b. Design Development (Preliminaries)

    c. Construction Documents (Working Drawings)

The deadline for receipt of proposals is __________________________.

Your Proposal should include the following:

1. A brief description of your firm's qualifications and experience including a list of projects completed and/or in progress during the past 5 years;

2. A description of tasks required to complete the scope of work;

3. An estimate of fees and reimbursable expenses for each of the elements in the scope of work;

4. A list of references.

Following an evaluation of the RFP responses, prospective consultants may be interviewed.

Please address all questions about the proposal content and process to the undersigned. Thank you.

(Signed)

[NOTE: Attach detailed information about the project: size (square footage), type of project (new construction, remodeling, addition, etc.) project cost, description of the community. Include statistical data on library collections, staff, circulation, And similar details. Indicate whether a needs assessment study has been completed as well as the availability of any other information critical to the programming and planning process.]

218

Item 7-C

REQUEST FOR PROPOSAL: DESIGN PROFESSIONALS

Dear____________________

Thank you for your recent letter voicing interest in providing architectural and/or interior design services for our new Central Libary Project. We are pleased to invite your firm as one of five firms selected to submit a proposal to design the new facility. Professional design services are to be divided between Architectural/Engineering and Interior Design. Please file separte responses accordingly.

In your response, please include the following:

1. Statement of qualificiations and description of responsibilities for each member of your firm who would be attached to this project including, but not necessarily limited to the following:

    a. Project architect

    b. Design Architect

    c. Job Captain

2. Describe the specifc library facilities and comparable public buildings each of the above named people have been responsible for.

3. Written response to the enclosed questionnaire.

4. Provide a list of references for buildings completed within the past five years.

5. For each of the projects listed, provide relevant information on size, project cost, special features, etc. Note estimated project costs and actual construction costs with explanation for any major difference.

6. Indicate the engineering firms you propose to use and note their qualifications, especially in terms of experience with libraries and other types of public buildings and related facilities:

a. Structural engineer

b. Mechanical engineer

c. Electrical engineer

d. Landscape architect

e. Acoustical engineer

f. Lighting engineer

g. Other specialists

7. Estimated fee for the project.

8. Approximate schedule for the following phases:

A. Schematics __________weeks

b. Design development (Preliminaries)-----------weeks

c. Construction documents (Working drawings & specifications ______________weeks

9. Submit any additional materials you believe will be helpful to us in evaluating your firm's qualfications and experience.

Please submit ________copies of your proposal to the undersigned by 5:00 p.m. __________________. Following evaluation of the proposals, an interview schedule will be established.

Thank you for your participation. Attached are several items for your further information. Please address all questions to the undersigned.

(Signed)

[NOTE: In addition to the questions to be answered, attachments may include (1) building program, (2) building site plan, (3) Scope of work statement from AIA standard forms or other sources, (4) Schedule for interviews and selection, (5) project schedule, etc.]

ITEM 7-D

QUESTIONNAIRE TO ACCOMPANY RFP TO DESIGN PROFESSIONALS

{Representative Questions}

1. Based upon your understanding of contemporary public library service, in what ways do you think future bulding requirements can best be anticipated for the next 10-20 years?

2. In what ways and to what degree have you familiarized yourself with the details of our project?

3. How well do you feel the library's building program responds to your requirements for information and what additional information do you believe is necessary?

4. What do you consider to be your firm's major strengths in design? Please illustrate with examples from your work.

5. Approximately what proportion of your firm's time would you expect to allocate to the following:

    a. pre-schematics
    b. schematics
    c. design development
    d. construction documents (working drawings and specifications)

6. Based upon your current knowledge of the project, what do you see as the major design issues which you must cope with?

7. For the areas of specialization listed below, please indicate:

    a. Those you feel unconditionally qualified to furnish within your own staff; indicate qualifications and experience;

    b. Those services you feel qualified to provide for routine situations but not for more complex situations;

c. Those areas which you would expect to use outside assistance.

Specialized concerns:

[1] energy conservation
[2] lighting
[3] acoustics
[4] graphics and signage
[5] communications technology and systems
[6] automation
[7] non print media (audio visual, video, etc.)

8. How will fees for outside specialists be covered?

9. If you anticipate requiring the services of outside specialists for any of the above, who would you recommend and what are their qualifications?

10. What supervision services does you firm normally provide during construction? Are these included in your base fee?

11. Describe the procedures your firm would use to minimize the necessity for change orders during construction.

12. What would be the extent of your on-site inspection responsibilities during construction and to whom would this be delegated? How often would site visits be made?

13. At what times during the planning period and in what manner will your firm provide projected cost estimates for the project?

14. If, in spite of the best efforts of all concerned, the project construction bids exceed available funds, how would your firm assist in determining the best ways of bringing the project within budget? How would such work be reflected in your fees? To what extent would you assume responsibility for the redesign of the project if required to reduce cost?

15. At what stages of design and for what purposes does your firm use study models? Is construction of models covered by your standard fee quoted in your Proposal? Are study models constructed in-house? How are they used with the client?

16. If a separate Interior Design firm is selected for ths project, how would your firm coordinate the design process to insure a harmonious end-product?

17. What general design characteristics do you believe are shared by the various structures your firm has designed in the past 5-10 years?

18. What criteria would you use in selecting exterior and interior materials and finishes?

19. What would you identify as the single, most unique characteristics of your firm and its practice that distinguishes it from others?

20. If awarded this project, what other commitments does your firm have which would need consideration in establishing a project schedule?

ITEM 7-E

QUESTIONNAIRE FOR INTERIOR DESIGN FIRMS

(Representative Questions)

1. In what ways and to what extent have you familiarized yourself with our project?

2. Based upon your understanding of contemporary public library services, in what ways do you think that library space planning, interior design elements, furnishings, etc. can anticipate the likely needs of the next 10-20 years?

3. What experience has your firm had in space planning, furnishing and otherwise creating a coordinated interior design for libraries?

4. What qualities of the local environment should be observed in the design of the interiors? Please be specific.

5. How would you propose introducing such qualities into the interior design?

6. How can the coordination of architectural and interior design best be achieved?

7. How would you involve the architect and client in the evolution of the interiors including choices of colors, fabrics, furnishings, etc.?

8. In what ways can your firm be of assistance in the design of lighting? Comment specifically on such aspects as daylighting, task lighting, ambient lighting and accent lighting.

9. How does your firm evaluate the interiors package in terms of long term maintenance and life cycle costs?

10. To what extent does your firm take the initiative and responsibility for intitiating changes in manufacturers products such as carpeting and furnishings? Please give specific examples.

11. Does your firm represent and/or merchandize the products of certain furniture manufacturers or vendors? If so, please list the manufacturers and/or vendors represented.

12. Describe your experience in space planning for libraries and other similar building types.

13. What experience has your firm had with purchasing offices of agencies similar to ours?

14. Please name the members of your firm who would be assigned to this project and indicate their respective responsibilities and qualifications.

15. How can we be assured that the items you recommend for the interiors represent a realistic approach to the interiors budget?

16. What would you identify as the single most unique characteristic of your firm and what do you consider to be its most significant qualification for this project?

17. At what point in the architectural design schedule would your firm wish to behind its work, and approximately how much time will be required for completion of the interior design package? Should it be bid simultaneously with construction?

18. Given the importance of signage to encouraging "self help" among library users, what would your approach be to signage? Will signage be done "in house"?

19. Describe how your firm deals with casework from concept and design through shop drawings and coordination of installation.

20. Please describe your firm's fee schedule as applied to this project and indicate what services will be provided. Are there other services you might offer at an additional fee? If so, what?

21. If, in spite of the best efforts of all concerned. the interior design bids exceed the available funds, how would your firm assist in determining the best ways for reducing costs to meet the project budget? How would such services be reflected in your fees?

22. What services does your firm provide in supervising installation of furnishings including floor coverings, wall coverings, lighting, graphics. signage, movable furniture,

casework, equipment, etc.? How is this work covered in your fees?

23. How will your firm arrive at valid estimates of costs for the interiors package? At what stages in planning will such figures be available and how will they be presented and reviewed?

24. For what length of time following completion of the interiors installation would your firm be available to interface with vendors in making adjustments for defective items, etc.? Would this service be included as part of your basic fee? If not, how much would such a service cost?

ITEM 7-F

SUGGESTED INTERVIEW QUESTIONS

Questions used in interviewing architects and interior designers will depend to some extent upon the evaluation of materials submitted with their respective proposals. Enough of the same questions should be asked each firm to provide a basis for comparison. However, the content of the proposals, and especially the responses to the questions submitted with the RFP usually lead to individualized questions. As with any interview, there should be sufficient opportunity for follow-up questions which arise on the spot as a result of the interview process.

In addition to clarifying and elaborating on material submitted with the Proposal responses, certain other questions may be asked such as the following:

1. Please describe the engineering and other specialized services your firm is prepared to provide as a part of its regular services.

2. What specific experience has your firm had in the design of energy efficient buildings of this type and size?

3. What do you consider to be your firm's most important qualifications for this project?

4. Please comment briefly on your firm's major strengths and achievements in design.

5. What design characteristics would seem important in identifying this building as a library rather than some other type of facility?

6. At what point do you consider the schematic phase to be completed?

7. Approximately what per centage of your firm's effort will go into each phase:

a. Schematics
b. Design development
c. Construction Documents
d. Construction supervision

8. How will the efforts of engineering be coordinated with architectural and interior design development?

9. Will production of construction documents be completed in-house or contracted to another firm?

10. How does your firm evaluate an evolving design in terms of life-cycle costs? Maintenance?

11. How do you arrive at project cost estimates and at what times are these presented?

12. In general, would you describe the design philosophy of your firm as tending toward the conservative end of the spectrum or directed more toward the innovative and experimental. Examples?

13. What is your experience with the planning team approach on projects of this size and complexity?

14. What do you feel are the key security issues facing libraries? How can these be addressed through design?

15. How do you propose to handle the review of drawings at the various stages by City staff, Library staff and consultants to get comments and approval?

16. What libraries do you use personally? When did you last use one and for what purpose?

17. What is your perception of this community and how will that influence design concepts?

ITEM 7-G

SUGGESTED TELEPHONE REFERENCE CHECK FORM

Note: Checking references of design professionals is an extremely important part of the total selection process. A check list should be formulated to be certain that comparative information is gathered for all candidates. However, these are only basic questions; others will arise and should be pursued during the telephone inteviews. Any discrepencies between the details of the Proposal and the information gathered by telephone should be carefully checked and evaluated.

INTERVIEW FORM

TELEPHONE REFERENCE CHECK FOR:(Firm)____________________________

Person contacted____

Position____

Phone No.____________________________

Building______________________________

Date Completed_________________________

1. What was the size and nature of your project?

2. What prior experience did you have in working with design professionals?

3. How was the firm in question involved? (Principal? Associate? Other?)

4. Who was the person responsible for the actual design work? (name)____

5. Describe the nature of your relationship with the designer:

   a. Attitude
   b. Listening skills
   c. Follow through

   d. Thoroughness
   e. Consideration of your ideas
   f. Response time
   g. Ingenuity
   h. Promptness
   i. Patience

6. Describe your experience with other firm members in similar terms.

7. How often were team project meetings held and who represented the firm?

8. How often was the project schedule revised and how well did the firm comply with the schedule?

9. If there were schedule delays, who was responsible for them?

10. How accurate were the cost estimates made by the architects during the planning period and prior to bid?

11. Approximately how many change orders were required and who was responsible?

12. How available was the architect during construction?

13. Did you provide a written building program? How well was it followed?

14. How would you rate the finished building in terms of:

   a. Appearance
   b. Flexibility
   c. Maintenance cost
   d. Internal environmental characteristics (lighting, heating acoustics, colors, etc.)
   e. Functional relationships
   f. Meeting space requirements

15. If you had a similar project, would you prefer working with the same firm? The same designer? Choose some other firm?

APPENDIX 8

FACILITY PLANNING, INFORMATION AND RESOURCES

California State Library

CALIFORNIA STATE LIBRARY

LIBRARY DEVELOPMENT SERVICES
1001 SIXTH STREET • SUITE 300 • SACRAMENTO, CA 95814

TELEPHONE (916) 445-4730
ONTYME: CSLLDS

FACILITY PLANNING, INFORMATION AND RESOURCES

The California State Library can be of help.

** CONSULTANTS with specialized knowledge of architecture and buildings, audiovisual services, systems analysis and others may be contacted for advice, suggestions, assistance in review of plans, programs, sites and services, or just to help you decide where and how to start.

** COPIES OF BUILDING PROGRAMS, sample schematic drawings and furniture/equipment layouts, photographs, dedication programs and publicity, books and periodicals on the state of the art, national guidelines, are available for loan.

** NEWS of funding sources for buildings through federal, state and institution grants, successful bond issue campaigns and suggested local funding methods is available to you.

** VISIT by a member of our consultant staff to meet with you, your board, architect or city council can be scheduled to assist in initial planning.

Other library directors have shared their building experience with us. We'd be pleased to share that information with you.

** Telephone (916) 445-4730

** OnTyme CSLLDS

** Mail
Library Development Services
1001 Sixth Street, Suite 300
Sacramento, CA 95814

ATTN: Ann E. Kirkland

APPENDIX 9

SITE SELECTION

By Anders C. Dahlgren, Consultant
Public Library Buildings and Planning Division
For Library Services
Wisconsin Department of Public Instruction

Note: This item appeared as an article in the May, 1985 issue of the Division for Library Services' publication Channel DLS.

SITE SELECTION

Anders C. Dahlgren

Site selection is a crucial step in any building project. Related issues are often complex, and the process can be further complicated by economic and political pressures. Yet the choice of a site is one of the most important determinants of the success of a library. A carefully selected site enhances the attractiveness and utility of a finished building.

A public library should be located where the people are. It should be highly visible and on major pedestrian and vehicular traffic routes. Typically, this means it should be downtown, where there is a high concentration of business and other activities. A convenient library is a well-used library.

Convenient location and accessibility are not the only factors a library board should consider when evaluating possible sites, however. There are a number of others, including those listed below.

Size of the property. Is it large enough for the proposed facility? Will it limit design options, dictating, for example, multistory construction?

Site availability. Does the owner wish to sell, or would acquiring the site involve condemnation proceedings?

Parking. Is the site large enough to accommodate on-site parking? If not, are there ample parking facilities nearby?

Future expansion. Is there room for an addition to the building at a later date, or would the board have to acquire adjacent properties in order to expand the library?

Cost. Can the library afford the property?

Zoning. Will building a library on the proposed site be permitted? Are there setbacks or other restrictions that limit the usable area on the property?

Natural features. Are there existing features, mature trees for example, the board may wish to preserve? Does the ground slope? Does water collect anywhere on the site?

Existing structures. Is the site vacant or are there structures to be demolished?

Unseen conditions. Is the soil suitable for support of a large structure? Are soil borings needed? Where are underground utility lines located?

There are numerous sources of information and guides to the site selection process. Holt's *Wisconsin Library Building Project Handbook* includes a chapter on the subject.

Two papers by Joseph Wheeler, "The Effective Location of Public Library Buildings" and "A Reconsideration of the Strategic Location for Public Library Buildings," are published by the University of Illinois Library School in its *Occasional Papers* series.

"A Public Library Site Symposium" is included in *LJ Special Report #1: Library Space Planning*. Problems of site selection for libraries serving areas larger than a single municipality are discussed in "District Libraries and the Construction Process," which appeared in the October 1984 *Illinois Libraries*.

Note: Anders C. Dahlgren is currently Consultant, Public Library Buildings and Planning for the Division for Library Services, Wisconsin Department of Public Instruction. The above excerpt is from the May, 1985 issue of Channel DLS.

BEST COPY AVAILABLE

APPENDIX 10

TABLE OF FREQUENTLY USED MEASUREMENTS FOR LIBRARY SPACE PLANNING

Prepared by Raymond M. Holt
Raymond M. Holt & Associates, Library Consultants
Del Mar, California

This table is excerpted from the Wisconsin Library Building Handbook, by Raymond M. Holt. Madison, Wisconsin: Division for Library Services, 1978.

TABLE IV-1*

TABLE OF FREQUENTLY USED MEASUREMENTS FOR LIBRARY SPACE PLANNING

LIBRARY MATERIALS:

SHELVING CAPACITY:

Assuming 8 volumes per lineal foot of shelf:

each 3 foot shelf will contain	24 Vols.
each single faced unit containing 7 shelves will hold	168 Vols.
each double faced unit containing 7 shelves will hold	336 Vols.
each single faced unit containing 5 shelves (60" shelving)	120 Vols.
each double faced unit containing 5 shelves (60" shelving)	240 Vols.
each single faced unit containing 3 shelves (42" or counter height shelving) will contain	72 Vols.
each double faced unit containing 3 shelves (42" or counter height shelving) will contain	144 Vols.
Reference books should be calculated at	5-7 Vols./Ft.
Bound periodicals should be calculated at	5-7 Vols./Ft.
Art books should be calculated at	6-7 Vols./Ft.
Disc recordings shelved vertically on shelves or in bins	6 discs/inch
16mm films, assorted sizes, stored on film shelving with 6 shelves per unit	100 films

VOLUMES PER SQ. FT. FOR TRADE BOOKS SHELVED ON DOUBLE FACED 90" STACK:

Using 5 shelves (top and bottom shelves left vacant for expansion)	10 Vols./Sq.Ft.
Using all 14 shelves, each 2/3 full (average 16 vols./shelf)	15 Vols./Sq.Ft.
Using all 14 shelves and averaging 24 Vols. per shelf (maximum working capacity)	22 Vols./Sq.Ft.

NUMBER OF USABLE SHELVES PER SINGLE FACED SECTION OF 90" STACK:

Trade books	7 shelves
Reference books	5-6 shelves

---

*Measurements given in this table are from various sources and are suggested only for approximating space requirements. Actual space will vary depending upon manufacturer and layout details.

Table is from Wisconsin Library Building Handbook. By Raymond M. Holt Madison, Wisconsin: Division for Library Services, 1978.

TABLE IV-1 (cont.)

Bound periodicals	5-6 shelves
Art and oversized books	5-6 shelves
SPACE OCCUPIED BY SHELVING: (No allowance for transverse aisles)	
Single faced section with 3 ft. aisle	12 Sq. Ft.
Double faced section with 3 ft. aisle	15 Sq. Ft.
Single faced section with 4 ft. aisle	15 Sq. Ft.
Double faced section with 4 ft. aisle	18 Sq. Ft.
SEATING:	
At tables	25 Sq. Ft./seat
Informal (lounge)	40 Sq. Ft./seat
Reading or study carrel	25-30 Sq. Ft./seat
In conference room around table	25 Sq. Ft./seat
Multipurpose room or auditorium seating	6-10 Sq. Ft./seat
Audio Visual carrels (single seat carrel)	30-35 Sq. Ft./seat
Typing Carrel	30-35 Sq. Ft./seat
Microfilm reader	25-30 Sq. Ft./seat
FILES:	
(Allowing space for extension of drawer plus user in front of file, but no aisle space on sides or back of file)	
Lateral files (42" drawer)	21 Sq. Ft.
Letter file	8½ Sq. Ft./file
Legal file	10 Sq. Ft./file
Jumbo file (picture file)	12½ Sq. Ft./file
Microfilm file cabinet	14 Sq. Ft./file
Card Catalogs:	
One free standing 72-drawer catalog with 3 ft. aisle on either side and space for drawer extension and user in front	45 Sq. Ft.
Flat files for maps, etc., with drawer extension and aisle	35 Sq. Ft.
One 72 drawer card catalog without allowance for aisle space on either side but with room for drawer extension and user in front	21 Sq. Ft.
MISCELLANEOUS LIBRARY FURNITURE ITEMS:	
Free standing dictionary and atlas stands with aisle space on 3 sides and user in front	25-32 Sq. Ft.
Index table (4' x 9") allowing 3 users per side	140 Sq. Ft.

TABLE IV-1 (cont.)

MISCELLANEOUS LIBRARY FURNITURE ITEMS (cont.)	
Disc Recording bins:	
Unit of 4 bins with aisle space in front only	25 Sq. Ft.
AV materials storage cabinet (18" deep x 39" wide) with drawer extension and user space in front	20 Sq. Ft.
OFFICES AND WORKROOMS:*	
Public work stations (circulation, reference, etc.)	150 Sq. Ft./staff
Administrative Librarian's office	250+ Sq. Ft.
Professional staff	125-150 Sq. Ft./staff
Clerical and para-professional staff	100-125 Sq. Ft./staff
Secretary/reception	100 Sq. Ft. + 30 Sq. Ft. for each seat in reception area
Floor Load	125 lbs./Sq. Ft. **
Compact Shelving	300 lbs./Sq. Ft.

* Automated workstations are apt to require more space.

** Unless local building code has a different requirement.

Note: This Table is excerpted from the *Wisconsin Library Building Handbook*, by Raymond M. Holt. Madison, Wisconsin: Division for Library Services, 1978.

APPENDIX 11

LIBRARY FACILITY SCORECARD

Prepared by Raymond M. Holt, Library Consultant
Raymond M. Holt & Associates, Library Consultants
Del Mar, California

Note: It is intended that this "scorecard" be used as a part of a library needs assessment process. Additional questions can easily be added to cover local conditions and situations.

LIBRARY FACILITY SCORECARD

	YES	NO	COMMENT
I. SITE & EXTERIOR ASPECTS			
1. Building easily identifiable	___	___	___
2. Safe approach to parking	___	___	___
3. Adequate parking for public	___	___	___
4. Adequate exterior signage	___	___	___
5. Adequate exterior lighting	___	___	___
6. Entrance identifiable from parking	___	___	___
7. Convenient & safe access to entry	___	___	___
8. Facility for after hourbook return	___	___	___
II. CONDITION OF BUILDING			
1. No visible cracking in structure	___	___	___
2. Access for physically handicapped	___	___	___
3. No signs of water leakage: Roof, walls, floors, other	___	___	___
4. Adequate HVAC with controlled distribution	___	___	___
5. Adequate life safety & security provisions	___	___	___
6. Adequate, even distribution of light both day and night	___	___	___
7. Elevator(s) if multiple floors	___	___	___
8. Floor feels solid underfoot	___	___	___
9. No visible deflections in floor	___	___	___
10. Stair handrails are secure	___	___	___
11. No sign of wood rot or termites at thresholds/window sills	___	___	___
12. No excessive drafts around doors and windows	___	___	___
13. Adequate number of electrical outlets where needed	___	___	___
14. Resetting of circuit breakers or replacement of fuses is infrequent	___	___	___
15. Room on switch panel for additional circuits	___	___	___
16. Sufficient telephone lines for all library uses	___	___	___
17. Adequate ceiling insulation	___	___	___
18. Annual utility bills are reasonable	___	___	___

	Yes	No	Comment
19. Annual cost of maintaining HVAC equipment is reasonable			
20. Number of toilet fixtures is adequate for traffic			
21. Toilets meet code for physically handicapped			
22. Lavatories, toilets and sinks are in good condition			
23. Floor drains located in restrooms			
24. Adequate water supply & pressure			
25. Roof and site drains sufficient to carry water away from building			

III. INTERIOR LAYOUT, SIGNAGE, ETC.

	Yes	No	Comment
1. Signage at entry to indicate hours			
2. Major library services easily identified from entry/circ. desk			
3. Collections and services arranged in a logical manner for public use			
4. Childrens' and adult services visibly separated			
5. User traffic logical and uncomplicated			
6. Sufficient restrooms for adults			
7. Separate restrooms for children (if bldg. exceeds 5,000 s.f.)			
8. Adequate space for custodial use			
9. Adequate shipping/receiving area adjacent to delivery entrance			
10. Sufficient storage for less frequently used materials, gift books, and miscellaneous			
11. Garaging for library vehicles			
12. Attractive, legible and appropriate signage			

IV. FURNITURE AND EQUIPMENT

	Yes	No	Comment
1. Sufficient shelving space for collections			
2. Sufficient seating for users			
3. Shelving braced for Seismic Zone 4			

	Yes	No	Comments
4. Seating for users is attractive, appropriate, comfortable			
5. Circulation, Reference Desks, etc. easy for public to locate			
6. Circulation, Reference Desks, etc. designed for efficient operations			
7. Adequate and appropriate space for displays			
8. General illumination supplemented by task lighting where needed			
9. Adequate equipment available for use of non print materials including microforms, AV, video			
10. Appropriate acoustical and light environment for users of micro readers. AV equipment and video			

V> STAFF OFFICE AND WORKROOMS

	Yes	No	Comments
1. Layout conducive to staff productivity			
2. Offices/workrooms appropriate for job tasks			
3. Offices/workrooms adequate in size			
4. Sufficient visual and acoustical privacy for supervisory tasks			
5. Office/workroom furniture/equipment adequate and appropriate			
6. Separate restrooms for staff			
7. Adequate and appropriately furnished lunch room/lounge for staff			
8. Sufficient telephones for staff			
9. Adequate electrical outlets for equipment			
10. Adequate task lighting to supplement general lighting at staff work stations			
11. Adequate heat, ventilation, cooling for staff offices/wkrms.			
12. Conference room for staff use			

	Yes	No	Comments
VI. PROGRAMMING SPACE			
1. Appropriate and adequate space for children's programs	___	___	________________
2. Appropriate and adequate space for adult programs	___	___	________________
3. Separate access to programming space when library is closed	___	___	________________
4. Access to restrooms when rest of library is closed	___	___	________________
VII. MISCELLANEOUS			
1. Provision for periodic Energy audit	___	___	________________
2. Provision for periodic updating of Space Needs Assessment audit	___	___	________________
3. Provision for regular inspection by fire marshall, building official, etc.	___	___	________________

END OF FACILITIES SCORECARD

APPENDIX 12

BUILDING PROGRAM OUTLINE FOR PUBLIC LIBRARIES

Prepared by Raymond M. Holt, Library Consultant
Raymond M. Holt & Associates, Library Consultants
Del Mar, California

Adapted from the Wisconsin Library Building Handbook. Madison, Wisconsin: Division for Library Services, 1978.

BUILDING PROGRAM OUTLINE FOR PUBLIC LIBRARIES*

Much of the information presented in the building program will be in the form of narrative writing. Whenever a particular concept is difficult to describe in words, try visualizing the concept and recording it in the form of a diagram. The architect for whom the program is being written is well versed in the interpretation of drawings and will readily grasp their meaning. Bubble diagrams should be used to show functional relationships and tables introduced wherever quantitative data is to be presented.

The building program should begin with a description of the library service area followed by a well defined statement of the library's objectives, the library's place in the community, the nature of the library's public, and other data which will set the stage. If the site for the library has been chosen, it should be also be described.

Following the opening statement, the building program should consider each part of the facility beginning with the entrance. Information should emphasize

1. Functional relationships to be achieved
2. Space requirements
3. Description of desired internal environment
4. All special requirements affecting design

The completed completed building program should provide a detailed profile of the library written in language which the architect can interpret accurately. Space estimates should be itemized in each area for collections, staff, public seating, library and/or other special equipment. Summary tables with total square footages should be included for each major area. Where space estimates are given, it is important to include reference to the method by which figures were determined, i.e., "based on 10 volumes per square foot," or "25 net square feet allowed for each chair at a table." Such notes will save valuable time later on when questions arise as to the basis for the estimates. Needless, to say, all worksheets should be carefully indexed and saved for reference.

---

* Adapted from: Raymond M. Holt. *Wisconsin Library Building Handbook*. Madison, Wisconsin: Division for Library Services, 1978.

Supply functional relationship diagrams and flow charts, but do not attempt to provide actual layout drawings. To draw your own plan is to restrict the most valuable asset the architect can offer - namely his or her talent for conceptual design.

THE INTRODUCTORY STATEMENT

The introductory statement should cover the following areas:

1. Nature and size of the community to be served.

2. Population characteristics affecting library service - present and future.

3. A brief history of the library in the community.

4. The present library building's history, especially if the project includes remodeling and/or expansion of the structure.

5. Description of the library's functions, services. collections, and special activities to be housed as a result of the project.

6. Library service concepts which have governed the preparation of the building program such as:

    a. Dynamic programming to reach all elements of the community,

    b. Maximizing staff productivity and minimizing problems of supervision,

    c. Flexibility to accommodate new services and collections whenever they occur,

    d. Use of integrated automated systems for library operations and services.

7. Special problems such as the needs of the physically handicapped, energy conservation, security, and building maintenance.

8. Characteristics of the ambience you want created in the building.

SUGGESTED LIST OF TOPICS FOR A BUILDING PROGRAM

The following topics are generally covered in a building program. Obviously, individual items must be adapted to the local situation. Suggestions which are not applicable should be disregarded and others added as needed.

I. THE ENTRANCE

  A. DESCRIPTION OF THE QUALITIES NECESSARY IN THE ENTRANCE.

    1. High visibility.
    2. Easy identification as a library.
    3. Street level - no steps.
    4. Inviting.
    5. Appropriate signing.
    6. Security provisions.
    7. Safety provisions - ice-free, non-slip surfaces.

  B. BASIC RELATIONSHIPS (Exterior).

    1. To parking and passenger drop-off.
    2. To pedestrian access.
    3. Other.

  C. BASIC RELATIONSHIPS (Interior).

    1. Entrance lobby.
    2. Circulation desk area.
    3. Other.

  D. REQUIREMENT FOR AUTOMATIC DOORS - sliding preferred to swinging doors, and avoidance of draft for staff at desk(s).

  E. DISPLAY CASES AND BULLETIN BOARDS (if any) at Entrance.

  F. ORIENTATION TO AVOID GLARE OR EXCESSIVE TRANSMISSION OF HEAT AND COLD THROUGH GLASS.

II. INTERIOR AREAS FOR THE PUBLIC

  A. CIRCULATION DESK AREA.

    1. Brief description of the circulation control system and its requirements in terms of equipment, space for files, and supplies, which must be located at the circulation desk.

2. Brief description of charging (if not covered in Para. 1 above) and discharging processes, including space required and number of book trucks used.
3. Brief description of registration system and its requirements for files and supplies.
4. Number of staff at circulation desk at any one time.
5. Peak number of people served at circulation desk per hour at present and in the future - the problem of queue control at busy times.
6. Description of such routines as those involving reserve books, return of overdue materials, etc., in terms of space required for work, shelving, book trucks, and files; indicate maximum number of volumes on reserve at any one time.
7. Description of all other activities carried on at the circulation desk, including personnel, equipment, and supplies involved.
8. Collection Security System description.

B. ADULT SERVICES AREA

1. Describe primary factors to be considered in locating the adult services area in terms of its relationships to other areas within the library.
    a. To entrance.
    b. Circulation desk.
    c. Children's area
    d. Staff workroom.
    e. Other.
2. Brief descriptive statement of the purpose of this area and the services given.
3. Describe the relationships of elements within the adult services area, such as:
    a. Collections.
    b. Staff service (reference) desk.
    c. Adult seating.
    d. Card catalogs, periodical indexes, etc.
    e. Displays.
    f. Other.

4. Description of any special considerations or requirements which should be observed in planning the adult services area.

5. Space must be provided to accommodate the following:

a. ____ No. of public service desks for adult services (Reference, etc.).

b. ____ Total no. of volumes in circulation collection (follow with a breakdown of collection into categories which should be considered separately in space allocation and organization).

Fiction ______________Volumes.

Non-fiction _________________Volumes.

Other (specify and list) ____________Volumes.

c. ____ Reference books (no. volumes).

d. Microform materials:

____ No. reels of microfilm.

____ No. fiche.

____ No. readers and reader/printers.

e. Periodicals:

____ Current periodicals (No. of titles)

____ No. bound periodicals in backfiles.

____ Linear ft. of unbound periodicals in backfiles.

f. Audio visual materials (dentify here unless a separate chapter is used for AV services; see item II.c. of outline).

____ No. disc recordings.

____ No. tape cassettes.

____ No. 16mm films.

____ No. 8mm films.

____ No. video tapes.

____ No. framed pictures.

____ No. jumbo file drawers of mounted pictures.

____ No. posters.

____ (Specify and quantify any other AV materials.

g. Describe and enumerate any other special collections to be housed.

6. User Accommodations for Adults.

   a. ____ No. adults to be seated at tables.

   b. ____ No. adults to be seated at study carrels.

   c. ____ No. adults to be seated at audio visual (wet carrels).

   d. ____ No. adults to be seated in lounge chairs.

   e. ____ Other space requirements for users (specify, describe, and quantify).

7. Space to be Supplied for Special Items of Furniture and Equipment, including:

   a. ____ No. filing cabinets for vertical files (4 drawer/cabinet).

   b. ____ No. jumbo filing cabinets for mounted pictures (3 drawer/cabinet).

   c. ____ No. card catalog drawers.

   d. ____ No. of periodical index tables (give approximate dimensions or no. of people to be seated at each).

   e. ____ No. of atlas cases.

   f. ____ No. of dictionary stands.

   g. ____ Other items (list and describe).

8. Description of Adult Collection arrangement, including any special categories or divisions to be used and any special types of shelving requirements.

   a. ____ No. volumes to be shelved in each of the described categories such as fiction, non-fiction, reference, rental, mysteries, westerns, local history, art books, etc.

   b. Special signing, shelving, or other requirements not covered above.

9. Describe location and use of the following in terms of relationships to other elements within the adult services area:

   a. Card catalogs and consulting tables.

   b. Vertical pamphlet and/or picture files.

   c. Atlas stand(s) and dictionary stand(s).

   d. Microform files and readers.

   e. Other (as listed under 7 e and f.

C. AUDIO VISUAL SERVICES

Note: if audio visual services are to occupy a separate area, rather than be integrated into the adult services area, then a section of the program should deal with the requirements. Space for non-print materials would then be deleted from the general accounting in item II. B. 5. above and grouped in the chapter on Audio Visual Services along with other information. If a production facility for video and/or other purposes is to be included, it may be a part of Audio Visual Services or fall under the topic E. "Special Purpose Areas." This chapter would include itemization of the quantities of the various non-print materials to be housed, a discussion of how the area relates to other parts of the library, the number and nature of accommodations, including audio visual "wet carrels," group viewing rooms, preview rooms, etc. Requirements for an AV workroom could then follow in a later chapter as part of staff offices and work areas (see III. F. of this outline).

D. CHILDREN'S SERVICES AREA

1. Purpose of the area and services given.
2. Relationship of the children's area.
    a. External relationships.
        (1) To entrance.
        (2) Circulation desk.
        (3) Adult area.
        (4) Staff workroom.
        (5) other.
    b. Internal relationships.
        (1) Collections.
        (2) Staff accommodations.
        (3) Children's seating.
        (4) Displays.
        (5) Story hour area.
        (6) Other.
    c. Space to accommodate:
        1. ____ Books (No. vols.).
        2. ____ Other collections or materials, including audio visual (itemize and quantify).
        3. ____ Children seated at audio visual carrels.
        4. ____ Children seated at tables.
        5. ____ Children seated at study carrels.
        6. ____ Children seated in lounge chairs.
        7. ____ Staff at children's desk.

BEST COPY AVAILABLE

d. Display cases, atlas and dictionary stands and other specialized furniture and equipment (number and dimensions as well as brief description).

e. Provisions needed for audio visual materials and equipment.

f. Other special items.

g. How will story hours and similar programs be handled and how many children normally attend? ________ Maximum and minimum number who attended a single story hour last year, if known.

h. Will an office be necessary for the Children's Librarian?

i. Special space for bulletin boards or other display.

j. Special divisions of the children's collections to be observed (if any); describe relative location of each and estimate number of volumes to be included in the grouping.

(1) ____ No. Reference Books.

(2) ____ No. Fiction Books.

(3) ____ No. Non-fiction Books.

(4) ____ No. Picture Books.

(5) ____ No. Easy Books (primers or first readers).

(6) ____ Other Books separated by grade (if any).

(7) ____ Non-book Materials.

E. YOUNG ADULT SERVICES AREA

(If the library plans a young adult services area, indicate requirements using items similar to those above for children's services areas.)

F. SPECIAL PURPOSE AREAS

1. Meeting and/or Conference room(s) (if any) and provide for each.

a. General description of programs and other uses for the room(s).

b. Relationship of meeting and/or conference room(s) to other areas of the library:

(1) Entrance.

(2) Adult area.

(3) Children's area.

(4) Staff area.

c. Number of people to be accommodated ________.

BEST COPY AVAILABLE

- d. Platform facilities needed (if any).
- e. Projection facilities.
- f. Storage facilities for chairs, tables, etc.
- g. Kitchenette facilities, if desire .

2. Typing room(s).
   - a. ____ No. of typewriters to be accommodated.
   - b. ____ Location of room(s) and relationship to other major areas.
3. Video Production Facilities.
   - a. Studio.
   - b. Control center.
   - c. Set and equipment storage.
   - d. Other.
4. Radio Facilities.
   - a. Broadcasting (AM and/or FM).
   - b. Citizens' Band for communications.
   - c. Other.
5. Non-print Media Production.
   - a. Audio.
   - b. Film.
   - c. Captioning.
   - d. Dry mount.
   - e. Other.

III. STAFF OFFICES AND WORK AREAS[64]

A. GENERAL RELATIONSHIPS

1. Relationship of staff work areas to other areas of the building.
2. Enumeration of staff offices and work areas.
3. Relationship of staff offices and work areas to one another.

---

[64] Discussions of all staff offices and workrooms should include precise information on the requirements for desks, casework (cabinets, and build-ins), storage, sinks, electrical outlets, telephones or other communications devices, and any other special items.

4. Relationship of staff offices and work areas to delivery and/or staff entrance.

B. ADMINISTRATION OFFICES.

1. Receptionist-secretary.
2. Library Administrator.
3. Other administrative staff (if any).

C. PUBLIC SERVICES (Professional other than administrative, Technical Services, extension services).

1. Public Services Supervisor (Head of reference or whatever title is used).
2. Public services staff workroom.

D. TECHNICAL SERVICES WORKROOM

1. Description of technical services activities, including flow diagram.
2. Technical Services Supervisor (Head cataloger or?).
3. Order clerk(s).
4. Cataloger(s).
5. Processor(s).
6. Typist(s)
7. Collections maintenance (mending and binding).
8. Tools:
    a. Shelf list.
    b. Bibliographic tools.
    c. Authority files.

E. CIRCULATION WORKROOM

1. Brief description of circulation routines carried on in the circulation workroom, including overdues and registration (Use flow diagrams where appropriate).
2. Chief Circulation Clerk's office (if necessary).
3. Circulation clerks.
4. Any special equipment used.
5. Files to which access is needed.

F. AUDIO VISUAL OR MEDIA WORKROOM

1. Brief description of work, materials, and staff to be housed.
2. Film service - cleaning, inspection, reservations, and maintenance.

BEST COPY AVAILABLE

3. Recordings - cleaning, inspection, processing and testing.
    a. Disc.
    b. Tape.
4. Media Preparation and production.
    a. Tape duplication.
    b. Film production (if any).
    c. Video (if any).
    d. Dark room facilities (if needed).
    e. Other.

G. EXTENSION SERVICES WORKROOM (if necessary)
1. Describe extension services maintained by the library.
    a. Branch libraries.
    b. Stations.
    c. Bookmobiles.
    d. Other.
2. Number of staff and their requirements for space.
3. Work flow in Extension Services Department.
4. Number of staff, their duties, and space requirements.
5. Storage requirements for collections related to extensions work.
6. Need for access to delivery and shipping room.
7. Other special requirements and conditions.

H. SPACE REQUIREMENTS FOR SYSTEM AND NETWORK ACTIVITIES
1. Interlibrary loan - unless covered under another topic.
2. Teletype and other electronic communications devices.
3. Special personnel and their requirements.
4. Brief description of activities associated with System and Network participation.
5. Special collection storage requirements (if any).
6. Other needs.

I. OTHER SEPARATE OFFICES OR WORKROOMS (if any)

J. CUSTODIAN WORKROOM
1. Brief description of custodian's duties and responsibilities.
2. Supplies, etc., to be stored.

BEST COPY AVAILABLE

BEST COPY AVAILABLE

3. Equipment to be housed.
4. Repair work to be done, if any, requiring shop space.
5. Cleaning facilities needed.
6. Location of auxilliary supply closets and sinks, if any are necessary.
7. Other.

IV. OTHER AREAS

A. DELIVERY.

1. Location of delivery entrance in terms of site considerations.
2. Relationahip of delivery entrance to major areas of the building.
3. Frequency and nature of pick-up and delivery use.
4. Equipment requirements.
    a. Receiving counter.
    b. Shelving.
    c. Sink and electrical outlets.
    d. Other.

B. STAFF LOUNGE.

1. Number of staff to be seated at any one time.
2. Number of seats at table(s).
3. Non-table-and-chair seating.
4. Range and refrigerator requirements.
5. Sink.
6. Appliances which will be used by staff (toasters, etc.).
7. Cupboards and other storage.
8. Location and relationship to other major areas of the library.
9. Atmosphere to be achieved.

C. QUIET ROOM.

1. Purpose and use of staff quiet room.
2. Location.
3. Furnishings and decor.

D. PUBLIC RESTROOMS.

1. Separation of restrooms for adults and children.
2. Location of restrooms as related to other building elements.

        3. Need for staff supervision from regularly manned stations.
        4. Requirements for preventing candalism.
        5. Custodial maintenance requirements.

V. MISCELLANEOUS

    A. PAGING REQUIREMENTS.
        1. Describe process by which returned materials will be sorted and returned to shelves.
        2. _____ Number of book trucks needed.
        3. Amount of shelving needed for sorting.
    B. OUTSIDE BOOK RETURN.
    C. SIGNING AND GRAPHICS REQUIREMENTS.
        1. Interior.
        2. Exterior.
    D. COMMUNICATIONS REQUIREMENTS.
        1. Telephone.
        2. Public address system.
        3. Teletype.
        4. Fire and instrusion protection.
        5. TTY (for deaf).
        6. Other.
    E. OTHER ITEMS NOT COVERED BY ABOVE OUTLINE OR PECULIAR TO A PARTICULAR LIBRARY.

VI. CONCLUSION

    A. RECAP OF DATA IN SUMMARY FORM.
        1. Collections to be housed.
        2. Public to be seated.
        3. Staff to be accommodated.
        4. Special space needs.
    B. CONCLUDING REMARKS.

APPENDIX 13

PARKING GUIDELINES

Prepared by Raymond M. Holt, Library Consultant
Raymond M. Holt & Associates, Library Consultants
Del Mar, California

PARKING GUIDELINES

Prepared by Raymond M. Holt
Raymond M. Holt & Associates, Library Consultants

The following guidelines are supplied in the absence of any so-called "Standard" for public library parking requirements.

Regardless of the formula used for determining the number of parking spaces, it is imparative that local conditions and the library use patterns of the community be given primary consideration. In most situations, adequate off-street parking (accessible and convenient to the library entrance) is a major determinant in user satisfaction as well as the amount of use a library faciltiy will receive.

Parking for a library in a densely populated urban setting may be quite different from the requirements which should be met by a suburban or rural library of similar size. Patterns of use must also be considered in terms of the ratio of adult to juvenile library users.

The square footage required for a typical parking stall will vary considerably depending on length, width, depth, angle, driveway dimensions, number of rows and other design factors. Parking provisions should provide for a safe and convenient area for passenger drop-off. If school or other buses provide transportation for class or special group visits, additional space may be necessary for their movement and parking for discharging and loading. The area required for driveway access to the parking lot from the adjacent street(s) is still another variable which will affect total parking space requirements.

PARKING CALCULATION GUIDELINES

1. Local Regulations:

Some jurisdictions have established parking requirements by ordinance or other means which specifically include library facilities, either as a separate entity or as one of a particular type of use, i.e., office buildings, theaters, churches, etc. The first step in determining parking requirements is to establish whether or not such a requirement exists in the particular jurisdiction. If so, then the requirement should be examined to determine how well it fulfills the library's potential need.

2. Ratio of Floor Area to Parking

Parking requirements for commercial and public use structures are often expressed as a ratio of a building's square footage of floor area. For instance:

(a) one parking space for every 400 square feet of building, or

(b) one square foot of parking for one square foot of building.

The applicability of this type of requirement to library buildings depends to some extent upon the nature of the library and the community served. A popular branch library with limited collections used heavily by people who drive to the library may need a higher ratio of parking space to building space than a large central library which has much of its space given over to collections and is used primarily for serious study and research.

3. Ratio of Parking to Seating

A more pragmatic guideline is to relate the number of parking spaces to seating, sometimes specifically to adult seating. Assuming a typical car carries two people, the ratio of 1 parking space for every 2 adult seats has some rationale. This number, of course, must be supplemented by additional parking spaces for all meeting rooms - usually covered by local regulations. Parking for staff will be over and above such calculations. A formula constucted on such a rationale takes into account the obvious fact that neither library materials nor children drive or park cars, and thus should not be a part of the calculations.

4. Staff Parking

The number of parking stalls required for staff is often regulated by the local jurisdiction. Some jursidictions are much more lenient in this regard than are others. Failure to provide adequate staff parking often becomes a major source of staff frustration and discontent. Wherever possible, staff parking should provide sufficient space for those staff members who consistently drive their cars to work.

APPENDIX 14

SITTING ON THE JOB - A STUDY IN ERGONOMICS

Prepared by Marshall Brown
Marshall Brown Interior Designer, Inc.
San Diego, California

MARSHALL BROWN
INTERIOR DESIGNER, INC.

SITTING ON THE JOB
A STUDY IN ERGONOMICS
September, 1985

As the eighties race rapidly toward the ninties, and the architects, product designers and interior designers experiment with stainless steel, plastic and reflective glass bravely searching for the environment of the decade, and everyone begins to feel that a terminal at every work station is a basic requirement for efficient work, the interior design community has been pressured to develop "the office of the future". In response to the physical requirements of the much publicized "high tec" world of data processing, word processing, electronic mail, micrographics and all the other computerized wizardry of office automation, the world of desks and chairs has been forced to undergo a far less publicized revolution of work station design. Interior designers, product designers and furniture designers around the world are feverously searching for the "office of the future" reflecting the requirements of the new technology within an environment motivating the most efficient staff in history.

Marshall Brown, President of Marshall Brown - Interior Designer, Inc. of San Diego, California, a firm specializing in space planning and interior design for commercial and institutional projects, insists that the work station designed to accommodate the new technology has as important an impact on the productivity of the office workers as the architectural environment, the building design, or the "high tec" equipment. Office automation alone certainly cannot increase the productivity of the office worker, particularly if users are uncomfortable with the surrounding environment including the location of furniture and equipment. As a result, Marshall and his professional staff are constantly examining what makes a work station effective. Interior design firms are constantly deluged with "innovative" products to solve the most complex requirements. Many hours are spent in evaluation and digestion of the many products available the in market place. Marshall and his staff must select items that will solve functional requirements for the present as well as the future while contributing positively to the overall interior statement.

MARSHALL BROWN INTERIOR DESIGNER, INC.
A STUDY IN ERGONOMICS

Marshall notes that the desk and chair continue to be the basic tools of the office despite the rapid introduction of the computer terminal. Marshall and many other interior planning experts agree that poor furniture design and inefficient office planning can make the finest computer system worthless. Designers and manufacturers therefore have been scrambling to come up with new concepts in furniture design to accommodate the new requirements.

The space planners, the efficiency experts and the building designers have made great strides in streamlining factories, but Marshall and many other designers feel that the white-collar productivity has been seriously neglected. Currently there is a surge of interest in updating the back office. As worker environment becomes more important, we are searching to find ways to move the office production to the forefront. In this service and information-oriented economy, it has become painfully obvious that the time is overdue to modernize the office milieu.

Mr. Brown, having recently added terminals to the operation of his design office, observes that physical and psychological stress has been created by bringing new technology into the office with the objective of creating more efficiency. This stress results in headaches and hypertension as well as back aches and bronchitis. Unlike the relatively clearcut hazards in factories - deafening noise or harsh chemicals - the hazards of offices are considerably more subtle and often equally debilitating. They emerge from a building block effect: a bad chair combines with such things as the incessant ringing of phones, the harsh glare from fluorescent lights, an inadequately ventilated or smoke filled room, or a poorly designed computer station, and even the pressures of financial or family problems. These tensions, say the researchers, are felt by everyone from secretaries to supervisors to executives.

The psychology of color is undergoing redefinition in every possible location. The nature of materials in architecture and all other areas of design is undergoing careful scrutiny. Corporate image is felt to be a measure of success. Carefully planned working environments are finally being considered important to the productivity of the work force. Beautiful and efficient work spaces are used not only to increase productivity but as added incentive for highly skilled staff.

Marshall states that he and many professionals around the world continue in an attempt to study a vast lexicon of disciplines: ergonomics, anthropometrics, human factors, biomechanical engineering, environmental psychology, and on and on. Every component of the modern office layout - furniture, lighting, colors, window temperature, acoustics, even odors - is undergoing scrupulous examination and redesign. These efforts have been spurred on not only by the requirement for better employees to be attracted and by the incorporation of the principals to be learned, but also by a corps of labor unions and office worker groups who understand how their members can benefit from this research.

As employers consider new or expanded space requirements, Marshall constantly battles for sufficient space to provide an efficient and productive working area for every anticipated worker. He strongly believes that the investment in adequate footage will have quick payback in worker productivity.

In his attempts to improve the office environment Marshall Brown continually attempts to convince executives of the fact that there is more to "going computer" than merely installing the finest technology. Many companies have spent enormous amounts of time and money putting together a top notch computer system complete with state of the art hardware and software, and then plop a terminal down on any old desk with any old chair. Several months later, employees complain of headaches and neck and back problems, and the CEO wonders why the return on investment isn't what the computer manufacturer promised and why productivity levels aren't skyrocketing. The problem is quite common in the age of automation. As anyone who has worked with computers knows, you can't just hook together any two pieces of computer equipment and expect them to work; each product needs to interface well with the other, often requiring adapters or modified programming to make them compatible. No matter how high the tech, the equipment simply won't work without proper interfacing. Similarly, Marshall Brown and other office designers and automation consultants are finding that you can't automatically link any employee with any computer work station and expect them to be compatible. As with the computer equipment, people and machines must be properly interfaced. Enter the desk and chair - the primary connection between people and their work.

Obviously, management should not be oblivious to the needs for satisfactory work spaces because workers certainly will be constantly reminded of any neglect in the layout or comfort considerations. Having a comfortable chair ranked second in importance in a major survey of white-collar employee attitudes about working environments; good lighting ranked first on the workers lists. Those requirements are mirrored by studies conducted by productivity experts, who have concluded that well designed work places can add an hour or more of productivity to the working day of most people. That translates into more than 30 extra productive days a year per worker. One study conducted by a Federal government agency concluded that providing a good chair and desk alone improved the productivity of data-entry clerks by a whopping 25 percent. Those dramatic figures document the relatively quick pay back resulting from an investment in good design and planning.

Thus the question that Marshall wrestles with constantly, what makes a good chair, desk, or work station? Of course, there is no one answer, and for good reason: there is no one type of person with one set of work habits or task requirements. Toward the often elusive goal of getting more conclusive answers, the science of ergonomics has arisen.

The word comes from two roots: ergo (work) and nomics (law or management), and it is the discipline that studies the relationship between humans and machines. It is through ergonomics that engineers and designers learn where to locate controls on a dashboard or any other machine; and precisely where a chair's backrest should be located to offer maximum support.

Ergonomics, virtually unheard of two years ago in connection with office furniture design, has become key to the furnishings industry. More than two dozen furniture manufacturers now feature ergonomic furniture products, although the term is often used rather loosely. In most cases, ergonomics is a synonym for flexibility: an ergonomic chair is one that can be adjusted easily by its user to suit that individual's unique size, shape and work habits; an ergonomic computer station is one that allows a worker to adjust the distance, angle, and height of the screen and keyboard for maximum comfort and minimum stress.

Several years of research by ergonomists in the U.S. and several European countries has developed some solid conclusions as to what makes an ideal desk and chair.

It has been proven that serious physical problems can result from poorly designed chairs. Occupational health experts believe that back disorders are the number two cause of absenteeism from work, second only to the common cold. Back ailments affect between 50 and 80 percent of the population and include complaints ranging from minor discomfort to major degeneration of the discs between vertebrae. Other ailments include circulation problems resulting from the chair seat cutting into the back of the leg behind the knee. What's worse, a poorly designed chair need not be noticeably uncomfortable to cause disorders; over prolonged periods, gradual damage can take place - along with a gradual decrease in productivity.

Most chairs were not designed to be sat on for long periods. Prolonged sitting restricts blood flow to the legs, leading to a number of circulation ailments - blood flowing to the legs cannot easily return to the heart. In addition to circulation problems, poorly designed chairs can create back problems, resulting from insufficient support of the entire spine. Even the softness of the seat is important. Conventional wisdom has it that a soft seat is more comfortable, and therefore better, but that is incorrect. A soft seat feels good only temporarily; eventually, the seat cushion will roll up around the sides of the buttocks, putting pressure on the hip joints. The seat's material is important, too. It should be of a porous material to allow body heat to dissipate, which is particularly important for people wearing clothing made from synthetic fibers, which tend to trap body heat and increase perspiration.

Marshall states that there are a few construction suggestions on which most designers agree:

1. The front of the chair should be rounded off - often called a scroll edge or waterfall cushion - in order to avoid restricting blood flow in the legs.
2. Support is needed for the vertebrae at the base of the spine, helping the back to hold a slight forward arch.
3. The seat cushion should have only light padding so that the buttocks can change pressure areas easily.
4. Backrests should be high enough to allow for relaxing - at least high enough to hit the lower few inches of the shoulder blade.
5. Seat height should be adjustable. Researchers recommend a range of at least 6 to 9 inches.
6. Footrests should be provided for two reasons: for short people, who must raise their chairs to reach the desk top, leaving their feet dangling; and for improving the angle of the foot when it is in a resting position.
7. A headrest is suggested if the chair reclines. However, large rolls that push the head forward are worse than nothing at all.

Marshall summarizes with his definition of a good chair: a chair should be in proportion to the person using it. There shouldn't be the problem of looking like a little child in a papa-bear chair. It has to fit.

Ergonomics experts agree that desks shouldn't be motionless because people working at them certainly are not. They should be adjustable to just about any position. Changing position benefits all workers. This is why ergonomics experts have engineered an increasing amount of flexibility into a new breed of desks that are specially designed for use with computer terminals. The problems that accompany regular use of computer terminals stem from several things. One is the design of the machines themselves: machines that have the screen attached to the keyboard require users to adjust their posture to suit the machine rather than the other way around; terminals with separate keyboards avoid such problems. People who wear glasses - especially bifocals - have particular problems, since many of them read out of only a portion of their glasses and must tilt their heads in order to be able to read the screen. As you might imagine, this posture becomes uncomfortable after only a couple of minutes.

Marshall emphasizes that many other problems result from office lighting: glare from lights or windows reflects off the screen into the user's eyes, causing eye strain during even moderate use. To compensate for the glare, many users shift their positions, leaning forward, back, or to the side to avoid the glare. Over time such posture wreaks havoc on backs, shoulders, wrists, arms, and necks. Eye problems can result, too, if the preferred position isn`t also within reasonable viewing distance.

Considerable attention, Brown believes, must be paid to lighting and windows. In computer environments, lighting needs are different from other typing situations. Overhead lighting should be dimmer, with individual task lighting at each work station that people can adjust for reading printed matter on paper. Light from windows should be blocked with curtains to eliminate distracting and irritating glare. Also helpful are computer screens that are adjustable - capable of tilting up, down, left or right. Brown states that these stations are known as ergonomic terminals.

It is also important for worker comfort to be able to place the computer on a desk that's adjustable. Ergonomically designed desks use a split desk top - one-half for the computer screen, the other for the keyboard. Each half moves up or down independently from the other. The best model also can tilt forward or back. Movement is accomplished with dials or cranks located under the desk. A few manufacturers offer electric controls that move the desk up and down at the touch of a button.

Brown observes that compared to the more traditional secretarial desk, such wizardry may seem to be all function and no form, but ergonomic desks can be as attractive as they are pragmatic. Many manufacturers produce sleek designs borrowed from Germany or Scandinavia where ergonomic furniture has been in use for years. In Sweden and in certain other countries, use of ergonomic desks and chairs is required by law for workers who sit at computer terminals. Some ergonomic desks are designed to fit within existing office partitions; some fit together with other pieces to form freestanding clusters. There are even more elegant models made for use in executive work stations.

MARSHALL BROWN INTERIOR DESIGNER, INC.
A STUDY IN ERGONOMICS

Marshall Brown is dedicated to the belief that a well-designed desk and chair, along with the knowledge of how to use them, appears to be a cure for a great many ills of the modern office. Amid the commotion over office design, however, it is crucial to remember that the most ergonomically sound furniture in the world can't beat a good job and a good boss - but it sure helps to be comfortable.

Assuredly, there is some amazing evidence that suggests that ergonomic furniture does work. The National Institute of Occupational Safety and Health (NIOSH) a Federal government research organization, found productivity gains from ergonomic furniture that would make any management consultant envious. NIOSH researchers used two groups of data-entry clerks to measure the differences in performance between workers using ergononic furniture and those in traditional, nonadjustable environments. Both groups of workers were doing identical tasks at computer terminals. Over the course of the study, workers switched from one environment to the other, so all workers were measured using both systems. Productivity improved by a dramatic 25%. The NIOSH findings have been corroborated by another study conducted by a major manufacturer of both ergonomic furniture and computers.

Brown insists that it would seem that investment in ergonomic furniture would be a smart one even if the studies mentioned turn out to be exaggerated. Assuming an improvement of 15% for a $15,000-a-year employee, a $1,500.00 ergonomic furniture work station may pay for itself in a very short time period.

Obviously installing the finest ergonomic furniture won't affect a thing if the furniture isn't used correctly. All indications show that employees need a lot of help to realize the potential of ergonomics. In another NIOSH experiment, participants using the adjustable furniture had shown no productivity gains until the researcher realized that workers didn't understand that the furniture could be manipulated. People previously have been accoustomed to adapting themselves to the furniture in lieu of adapting the furniture to the task and the employee. In-office demonstrations and the supply of a manual to each employee can provide a great deal of support for the installation.

Marshall Brown concludes, therefore, that it is reasonable to assume that the well designed desk and chair along with the knowledge of how to use them can do much to improve the ills of the modern office. It is important to remember that the most efficient furniture in the world still needs the skill of the experienced space planner and/or interior designer to implement the furniture system into a pleasant overall working environment. The use of color and texture along with proper lighting and acoustical control become important components of the overall formula necessary to create a highly efficient working environment.

The professional interior designer must consider all the items discussed above along with important factors such as budget, schedule, and expansion possibilities as the space study evolves. It becomes his responsibility to make certain that the goals of the client are understood and translated into a functional and aesthetically pleasing working environment.

APPENDIX 15

FLEXIBLE WORK SPACES (OPEN VS. CLOSED)

Prepared by Marshall Brown
Marshall Brown Interior Designer, Inc.
San Diego, California

MARSHALL BROWN
INTERIOR DESIGNER, INC.

FLEXIBLE WORK SPACES (OPEN VS. CLOSED)
September, 1985

NEW CONSTRUCTION

A. Conventional Planning (30% growth)
Construction Cost-$13.75 Furniture Cost-$8.13
Total $21.88 per SF

B. Open landscape system (50% growth)
Construction Cost-$10.75 Furniture Cost-$10.63
Total $21.38 per SF

C. Modified open office, enclosed management (50% growth)
Construction Cost-$11.88 Furniture Cost-$10.63
Total $22.51 per SF

Note: Usually B will fall 10-15% lower than A

BASIS FOR DECISION

A. Privacy Requirement
B. Acoustic Requirement
C. Work and Communication Flow
D. Initial vs. long-term cost comparison
E. Air Distribution
F. Utility Requirements

DESIGNER INPUT REQUIREMENT

A. Mimimum 30 Employees
B. Task groups continually change
C. Greater close proximity storage requirement
D. Available funds (capital vs. operating)

FLEXIBLE WORK SPACES
September, 1985

TASK/AMBIENT LIGHTING (TAL) VS. INTEGRAL FLUORESCENT

Good working light levels of 50 foot candles or better square foot can be achieved with indirect and ambient task lighting in the range of 1.65 watts per sq. ft. Standard fluorescent lighting in a conventional office layout generally requires 2 watts plus per square foot.

TAL NEGATIVE CONSIDERATION

A. Glare
B. Eye irritation (60 cycle blink)
C. Non-continuous lighting irritation
D. Energy conservation
E. Fast write off (has nothing to do with proper lighting)

NOTE:

Perhaps the best illumination available is pendant mounted ceiling fixtures which give good ambient lighting teamed with task lighting.

REMODELED SPACE ADVANTAGES TO OPEN OFFICE

A. Minimal change to structure
B. Minimal change to utility supply
C. Minimal change to air distribution
D. Building codes not affected (5'9" height or less)
E. 20% greater density of staff
F. Existing furniture can be used in combination

APPENDIX 16

SUGGESTED LIST OF LIBRARIES TO VISIT

Prepared by Ann Kirkland
California state Library

Part 1: Visit a Library in Southern California

Part 2: Visit a Library in Northern California

PART 1

VISIT A LIBRARY IN SOUTHERN CALIFORNIA

ALTADENA DISTRICT LIBRARY
600 E. Mariposa Street
Altadena 91001
Telephone (818) 798-0833

24,000 sf
Built in 1969

GLENDALE PUBLIC LIBRARY
222 E. Harvard Street
Glendale 91205
Telephone (818) 956-2030

92,000 sf
Built in 1972

GLENDORA LIBRARY AND CULTURAL CENTER
140 S. Glendora Avenue
Glendora 91740
Telephone (818) 914-8291

28,000 sf
Built in 1972

LONG BEACH PUBLIC LIBRARY
101 Pacific Avenue
Long Beach 90802
Telephone (213) 437-2949

135,000 sf
Built in 1977

Los Angeles County:
LA VERNE BRANCH
3640 D Street
La Verne

10,000 sf
Built in 1985

(Call L. A. County Headquarters for additional new building locations: (213) 922-8131)

Los Angeles City Library:
EAGLE ROCK BRANCH
Casper and Merton Avenues
Los Angeles

12,500 sf
Built in 1981

(Call L. A. Public Library for additional new building locations (213) 612-3200)

Orange County Library:
IRVINE BRANCH
Yale and Walnut, Irvine

18,000 sf
Built in 1985

(Call Orange County Public Library for additional new building locations: (714) 634-7809)

SOUTH PASADENA PUBLIC LIBRARY
1100 Oxley Street
South Pasadena 91030
Telephone: (818) 799-9108

1982 remodeled Carnegie Library building

VISIT A LIBRARY IN NORTHERN CALIFORNIA

Alameda County Library
NEWARK BRANCH LIBRARY
6300 Civic Terrace Avenue
Newark 94560

10,000 sf
Built in 1983

Butte County Library
CHICO BRANCH LIBRARY
1108 Sherman Avenue
Chico 95926
(916) 891-2762

23,000 sf
Built in 1983

EL DORADO COUNTY LIBRARY
345 Fair Lane
Placerville 95667
Telephone: (916) 626-2561

23,000 sf
Built in 1978

HAYWARD PUBLIC LIBRARY
835 C Street
Hayward 94541
Telephone: (415) 784-8688

LARKSPUR PUBLIC LIBRARY
400 Magnolia Avenue
Larkspur 94939

Expanded in 1984

Oakland Public Library
CITY CENTER BRANCH
City Hall Plaza (14th St. & San Pablo Avenue)
Oakland 94612

Porto Structure, 1982
240 sf

Santa Clara County Library
SANTA TERESA LIBRARY
Cottle Road and Santa Teresa Blvd.
Santa Clara
Telephone: (408) 281-1878

Solano County Library
FAIRFIELD-SUISUN COMMUNITY LIBRARY
1150 Kentucky St.
Fairfield 94533
Telephone: (707) 429-6601

40,000 sf
Completed 1976

Sonoma County Library
ROHNERT PARK-COTATI REGIONAL BRANCH
6600 Hunter Drive
Rohnert Park 95472
Telephone (707) 823-7691

10,000 sf
Completed in 1976

SUNNYVALE PUBLIC LIBRARY
665 W. Olive Ave.
Sunnyvale 94086
Telephone (408) 738-5585

60,000 sf
Completed in 1985

APPENDIX 17

LIBRARY FLOOR PLANS ON DISPLAY AT WORKSHOPS

Provided by Cy Silver
California State Library

CALIFORNIA STATE LIBRARY
LIBRARY DEVELOPMENT SERVICES
1001 SIXTH STREET • SUITE 300 • SACRAMENTO, CA 95814

TELEPHONE (916) 445-4730
ONTYME CSLLDS

TALKING BUILDINGS: FLOOR PLAN DISPLAY

Floor plans for the following California public libraries are displayed during the Talking Buildings workshop, October 1985. Most are recently completed, although a few are still under design or construction. The buildings range in size from 5,000 sq.ft. to 64,000 sq.ft. Most of them have very workable designs.

1. Tracy (San Joaquin County). Addition to Wadsworth Memorial (Branch) Library, 1987(?). 17,000 sq.ft. total. (6,000 original + 11,000 addition).

2. Healdsburg (Sonoma County). Branch Library, 1987(?). 12,000 sq.ft.

   Note separate section for special collections, with reception patio.

3. Walnut (Los Angeles County), 1985. 11,000 sq.ft. Variation of basic Los Angeles County Library Branch design (e.g. Laverne, Diamond Bar Branches).

4. Atascadero (San Luis Obispo County). Branch Library, 1987(?) Funding not yet in place)). 9,000 sq.ft.

5. Sonora (Tuolumne County). Main Library, 1987(?) 22,000 sq.ft.

   Part of community center on sloping site, set on slope of bowl.

   Plan shows general location of functional spaces prior to furniture layout.

6. San Bernardino. Norman T. Feldheym Central Library, 1985. 64,000 sq.ft.

   "The 64,000 square foot Norman T. Feldheym Central Library will house 200,000 volumes of books, magazines and newspapers as well as 500 16MM films, 200 videocassettes, 600 audiocassettes, 3,000 audiodiscs, several Art Galleries, a 200-seat theatre-type lecture hall, a 2,250 square foot meeting room, a California room dedicated to historical materials and a microcomputer laboratory that is the first of its kind in the United States. The children's area incorporates a 200-seat story time theatre, an indoor crafts area, an outdoor play area, and a 300-gallon aquarium."

7. Calexico (Imperial County). Main Library, 1985(?) 20,500 sq.ft.

   Towers are passive flues. Multipurpose room also serves as city council chamber.

8. Arcata (Humboldt County). Branch Library, 1985. 5,000 sq.ft.

9. - 12.: A table comparing their features was prepared by the architect.

9. Crescent City, 1982. Del Norte County (Main) Library. 6,000 sq.ft.

10. Ukiah, 1972. Mendocino County (Main) Library. 12,000 sq.ft. plus 3,000 sq.ft. basement.

11. Watsonville (Monterey County), 1976. Main Library. 16,000 sq.ft.

12. Lakeport, 1985(?). Lake County (Main) Library. 10,000 sq.ft.

13. Moreno Valley (Riverside County), 1986(?). Branch Library, 13,000-17,000 sq.ft.

Sheet 4 is the overall initial floor plan, with a 4,000 sq.ft. senior center in the northwest corner of the library floor.

Sheet 3 shows the initial furniture layout for the 13,000 sq.ft. library.

Sheet 1 is the 17,000 sq.ft. library layout when it takes occupancy of the northwest corner some years from now.

14. Chico, 1981(?). Branch Library, 23,000 sq.ft.

CS:cb

APPENDIX 18

CURRENT ACADEMIC LIBRARY BUILDING PROJECTS

Compiled from Questionnaires to Academic Libraries
in California, August, 1985

ACADEMIC LIBRARY BUILDING PROJECTS

Note: This information was provided in response to a questionnaire circulated to ascertain building activity among academic institutions in California.

College	Remodel	Addition	New Construction	Planning Stage	In Process	Completed	Number of Square Feet	Approx. Project Cost
Cuyamaca College			X	X			25,000	4,500,000
Los Angeles Mission Col.			X	X			25,000	NA
Pasadena City College			X	X			100,000	13,200,000
Santa Barbara City Col.			X	X			41,000	7,000,000
West Hills College		X		X			7,000	450,000
Cal.St.Poly.Pomona	X			X			50,952	7,074,000
Loma Linda U. (Del Webb)						X	59,109	6,750,000
Mills College	X	X					60,000	6,450,000
Naval Postgrad. School (Monterey)		X		X			45,000	11,200,000
University of Redlands	X			X			4,000	175,000
U.C. Irvine	X				X		16,600	496,000
Whittier College		X		X			28,000	NA
University of the Pacific	X	X		X			34,600*	6,281,680

---

* 34,600 sq. ft. addition; 34,000 sq. ft. remodeling